REPORT

of the

COMMITTEE ON TEACHER EDUCATION

in

MAHARASHTRA STATE

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FOREWORD

It is with great pleasure that we submit to the Government of Maharashtra this Report on Teacher Education. Our Committee which was appointed under Government Resolution, Education and Social Welfare Department, No. TCM-1265-A of 10th November 1965, was directed to review the problems and patterns of teacher-education in the State and to make recommendations for meeting the challenges of the existing situation. The Resolution is quoted below:

"With a view to improving the quality of school education, it is necessary to redesign the pattern of teacher-education at various levels and to evolve a rational and integrated pattern. Government is, therefore, pleased to appoint a Committee..... to review the teacher training courses at the Pre-primary, Primary and Secondary stages and to make detailed recommendations for their improvement"

2. Terms of Reference

The terms of reference of the Committee were stated as follows:—

- (1) to review the present pattern of training colleges at all levels with reference to their academic effectiveness and viability as administrative units and to recommend a suitably revised pattern;
- (2) to study the present problems of training colleges in regard to admission, qualifications of trainees, pupil-teacher ratio, qualifications of the staff, physical facilities such as plant, equipment, etc. and to suggest suitable norms for the same;
- (3) to study the curricula and duration of training courses and to make recommendations for their improvement and reorganization;

- (4) to study the methods of teaching and evaluation and to suggest ways and means to improve them;
- (5) to study the administrative and financial problems of the training colleges and to recommend ways and means to solve them;
- (6) to recommend effective ways of co-ordinating the training programmes organised by different agencies like the Universities, Department of Education, etc.
- (7) to study special problems of training women teachers and teachers for Tribal and Backward areas, and to recommend measures for their solution;
- (8) to study the problems of special training colleges for subject teachers and for in-service training of teachers and to recommend ways and means to solve them; and
- (9) to study any other problems connected with teachereducation and to recommend ways and means to solve them.

The Committee was requested to submit its report within a period of six months. Accordingly, the report is being submitted on 9th May, 1966.

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3. Procedure of Work

In its first meeting held on 9th December, 1965, the Committee scrutinised the terms of reference in order to decide the procedure to be adopted for studying the existing problems of teacher-education in the State and finding out their solutions:

(a) It was apparent that a comprehensive factual study of the training institutions and their curricula was essential for a full understanding of the practical difficulties experienced in conducting the existing training programmes. As regards the study, it was decided to utilise for the Committee's work some of the Surveys and Studies conducted by the State Institute of Education, Poona, in 1964-65 and to request it to

undertake a few more urgent enquiries. These studies form the base from which the Committee went on to locate the problem-areas in teacher-education and also to identify helpful points which could be emphasised in suggesting solutions to some of the current problems. Although its main concern was to review the general programmes of teacher-education, the Committee thought it fit to consult the educators engaged in the special programmes for teachers of Physical Education and Hindi, as also for teachers of Balwadis in rural and tribal areas, in order to obtain a wide perspective for the existing system of teacher-education in the State.

- (b) In order to see the present problems of teacher-education in their historical perspective, it was decided to note the significant past trends in teacher-education at the pre-primary, primary and secondary levels. In this task, departmental reports on the progress of education in the State and the reports and notes prepared by several Committees and study groups during the last few years, particularly since 1954, were of great assistance. Reports of the study groups and seminars on the problems of teacher-education in the country, published from time to time (since 1960 in particular), were valuable in placing the picture of teacher-education in the State against the national background. The direction given by this background to the deliberations of the Committee is reflected in some of the recommendations made by it to solve the problems of teacher-education in the State.
- (c) The work of the Committee in studying the existing conditions of teacher-education from the point of view of the persons actually engaged in it was greatly facilitated by the availability of comprehensive reports of the conferences on pre-primary, primary and secondary teacher-education held by the State Institute of Education in 1964-65.
- (d) Apart from the study of documents, the Committee made arrangements to hold direct discussions with the Principals of primary and secondary training institutions during their annual conferences which were to be organized by the Institute in March, 1966. As the Institute usually

invites several educationists to work as resource persons in such conferences, the Committee requested it to invite this time the representative educationists suggested by the Committee.

- (e) With a view to getting acquainted with the actual working of training institutions and the special problems of teacher-education in the different divisions of the State, the Committee suggested to the State Institute of Education that the conferences of the Principals of primary training colleges be organised at Aurangabad, Amaravati, Kolhapur and Poona.
- (f) The curriculum for teacher-education is the pivotal point for organising the training facilities. It was decided to appoint three sub-committees for a detailed analysis of the existing curricula for pre-primary, primary and secondary training colleges. Broad criteria were supplied to these sub-committees to ensure a uniformity of approach. The indicative outlines of courses which the Committee finally prepared for teacher-education at all the three levels are included in Part IV, Appendix VII.
- (g) For broadening the basis of the Committee's thinking, it was decided to refer to books and reports on the systems of teacher-education in other countries. Working papers incorporating their salient points were thoroughly discussed by the members. Some of the results of these discussions are included in the Committee's findings and recommendations.

4. Visits

The period at the disposal of the Committee being rather limited, it was decided to visit only a few typical institutions and the venues for the divisional conferences were selected accordingly. At Aurangabad, the Committee visited the Government College of Education; at Amaravati, it studied the working of the Primary Extension Services Centre attached to the Rural Institute; from Kolhapur a visit was arranged to the G. K. Institute of Rural Education (Gargoti) and its Extension

Services Centre. At the same place, the Committee acquainted itself with the details of the three-year integrated course for teacher-education conducted at the Rural Institute. At Poona, visits were paid to Shishu Vihar and Stree Shikshan Sanstha, Karvenagar.

5. Consultations

The Committee had the rare privilege of holding consultations with Prof. C. E. Beeby from the Centre for Studies in Education and Development, Graduate School of Education, Harvard University, U. S. A., who was visiting this country as Consultant to the Indian Education Commission. Prof. Beeby had shown a desire to study the facilities for teacher-education in some State in India, at first hand. The Committee siezed this opportunity to request him to visit Maharashtra and give it the benefit of his expert views. Also, we had the honour of discussing some of our findings and tentative decisions with Dr. C. D. Deshpande, Director of Education, who had just returned from an educational study tour of the U. K. and U. S. S. R. He gave us a considerable amount of his valuable time for detailed discussions.

6. Other Resources

The appointment of the Committee aroused much interest in persons directly concerned with teacher-education, and particularly among teachers. Several of them wrote letters to the Committee to express their views on how the facilities and curricula should be improved. Letters were received even from teachers under training. The members of the Committee organised informal group discussions with teachers, teacher-educators, parents and others at different places in the State to elicit their views on teacher-education. The Committee has given due consideration to these views.

7. Plan of the Report

This report is presented in four parts. The first part makes a statement on the quality of teachers. In the second part,

a presentation of the existing conditions and problems is attempted in some detail. The third part includes a statement of the new trends and patterns in teacher-education, the conclusions together with the recommendations based on them, and the abstract of recommendations. The statistical statements, schedules, references, indicative curricula and full text of the Government Resolution appointing the Committee, are included in the fourth part which consists of appendices.

8. Acknowledgements

It has indeed been a pleasure to apply our minds to the pressing problems of teacher-education in Maharashtra. The benefit we have ourselves derived from this study in reshaping our viewpoints on teacher-education and refining our insights into its problems in the context of education as a whole is, to say the least, invaluable. We are sincerely thankful to the Government of Maharashtra for giving us the privilege of contributing some of our thinking towards the improvement of the quality of teachers. And to all those who helped us with their suggestions for the improvement of teacher-education, as also with the various tasks connected with the preparation of this report, we owe a vast debt of gratitude.

- 1. CHITRA NAIK (Chairman)
- 2. N. V. PATANKAR
- 3. A. B. MAGDUM
- 4. N. T. VARTAK
- 5. S. N. TAMHANE
- 6. L. N. CHHAPEKAR
- 7. V. D. DESAI
- 8. S. R. LONDHE
- 9. B. D. KARVE
- 10. SHESH NAMLE
- 11. N. K. UPASANI (Member-Secretary).

PART I

GOALS AND PERSPECTIVES

This Part presents the standpoint from which we have reviewed the problems of teacher-supply and teacher-education. The Introduction states the nature and magnitude of the problem assigned to our Committee. Chapter One describes the total perspective against which the problems of teacher-supply and teacher-education must be viewed, particularly at the present moment when the forces of modernization are rushing upon us and throwing our traditional beliefs and practices into a confused turmoil. It attempts to categorize the factors which impinge upon the quality of teacher-education, in order to provide a rational and integrated basis for our enquiry.



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INTRODUCTION

Ever since the world witnessed the first glimmerings of civilization, the minds of its thoughtful citizens have been exercised over some deficiency or the other in the conduct of its affairs. Among the matters which have vexed them constantly, the inability of the educational system to become forward-looking has been the most prominent. Whether the system belongs to the East or West, conservatism remains its chief characteristic everywhere. In the East, the older age of civilization has made this conservatism more pronounced. Efforts have been made by educational reformers, time and again, to liberate education from its habitual disinclination to keep pace with the onward movement of other vital sectors in life. Most of these efforts have been directed towards changes in the aims of education, reform of the curricula, experimentation with instructional techniques and introduction of new schemes to remove some glaring deficiency either in the provision of educational facilities or in the structure of the system itself. But the provision to these efforts has rarely been adequate.

2. In the past twenty years, the probings into the causes of this deplorable sluggishness of educational systems have brought to light an apparently simple causative factor: the traditional inability of the human element in the educational system—particularly the teacher—to cope with the demands of change. This simple truth had obviously become entangled in webs of ideologies and complexities of improvement schemes. But now that it has appeared into sight, it has become clear that even the best laid schemes of education and the most expertly designed curricula would come to nothing if their implementation cannot be placed into able hands. This realization has been gathering force in recent years and much concern is evident everywhere to examine and increase the quality of the teacher and the educational administrator.

The concern over the quality of the teacher is naturally greater because he is the agent who finally delivers to the pupils the goods produced by the system. It is upto him either to deliver them not only intact but attractively wrapped or to hand them over shoddily in a damaged condition. Apparently, therefore, it is as a result of this widely felt concern over the capacity of the teacher to become an effective transmitter of new knowledge, that we have been assigned this task of reviewing the programmes and problems of teachereducation in the State.

3. We agree that the necessity to critically examine the problems of teacher-education has become especially compelling in view of the recent demand on education to adjust itself to many unexpected upheavals in the goals and organization of our society. Some currents of desires and fears

which had lain dormant and unseen in pre-independence days, have suddenly burst forth into activity and subjected the nation's life to unforeseen stresses. The end of their isolation from the free world has upset the traditional inertia of our people but left them perplexed and disoriented. The impact of the forces of modernization which have originated elsewhere but affected us vitally, has made many of our post-independence educational reforms lock like anachronisms, which they really are, because in the past fifteen years the world has moved on faster than it did in a whole century earlier.

- 4. In short, the solutions and approaches which have appeared quite efficacious in the past are proving inapplicable to the present situation. This attempt at a re-examination of the problems and provision of teacher-education, therefore, has to locate not just the points where the existing provision has been responding inadequately to the goals and practices of school education, but also has to keep in view the changes that are taking place in education as a whole. It is only on this background that it would be possible to consider the new directions in which teacher-education might move on. The necessity for a new direction is no longer a matter of controversy. Most people now agree that the challenge of new situations can be met only through new responses.
- 5. In a limited enquiry of this type, we cannot move too far afield analyzing the relatedness of teacher-education to other aspects and areas in the total educational system. Still, some steps beyond the prescribed limits are essential since the problem of teacher-education (and any educational problems, for that matter) cannot be studied in isolation from other problems of education. The class-room, the home backgrounds of the pupils, the aspirations of the community, the nature of the administrative process, the immediate as well as far-reaching national goals, the instrumentality of education in achieving them, the kind of persons who are available for recruitment to the teaching profession, the conditions of their work, these and similar factors have to be referred to, since they make an unavoidable impact on the nature and quality of teacher-education.
- 6. The field of our enquiry comprises the entire provision for teacher-education at all levels and the advantages to be gained from such an extensive probing are substantial. One of the reasons for the ineffectiveness and imbalance of our past educational programmes has been the compartmenta-lization of education into stages and sections which had but a scanty interrelationship. Taking an integrated view of teacher-education is, therefore, a desirable departure from the separatist tradition of the past. The extensiveness of the field does make the task of the enquirer rather heavy; but this burden seems lighter when the benefits of an integrated view become apparent in the greater meaning with which every aspect of the enquiry gets invested.

- 7. We are fully aware of the complexity of the problem we have to investigate. The task of finding out ways and means for supplying effective teachers to the educational system has never been easy. To-day, it is all the more difficult for several reasons. The significant role now assigned to education in the national endeavour for increased economic production cannot be fulfilled without teachers of a high calibre. The wide variety of courses essential at the secondary and collegiate stages for evolving and promoting new occupational patterns, calls for teachers of diverse preparations. Expansion of educational provision compels the achievement of numerical targets in teacher-recruitment, but in that process, quality conflicts with quantity. Of these three demands for teachers, each possessing a different character, none can wait till the other one is satisfied. Therefore, the question which has to be answered is: "How can we supply our educational system with effective teachers, in sufficient numbers, as speedily as possible?"
- 8. To say the least, the question is most staggering. Yet, it must somehow be solved if we earnestly wish to educate our people well enough to catch up with the progress of the advanced nations. We are almost a hundred years behind them in scientific and economic progress and it is only a tremendous developmental leap within the next ten years that can save us from perpetual backwardness. The response to the challenge obviously lies in so designing and accelerating our educational programmes as to create and augment the productive human resources which would bring the leap within the range of possibility. Such a programme calls for a large teaching force of a high quality.

Moreover, academic quality will not be enough, if the current emergency is to be successfully met. The "quality" of teachers would have to connote, together with depth of subject-knowledge and mastery of teaching skills, the capacity to realize the magnitude of the task they are called upon to shoulder. In addition, as members of the largest and most important professional group engaged in renovating their old nation, they must be endowed with that social sensitivity which makes individuals perceive the need for such "quality" in themselves. No exhortations and external incentives can ever succeed in substituting that high motive power which social sensitivity alone can generate.

9. While searching for "quality" in teachers, we cannot afford to neglect the problems of quantity. It is, however, obvious that their solution may have to be found in measures other than inflating the teaching-force with meet recruits. Such inflation, whenever attempted, has only served to aggravate the emergency instead of reducing its seriousness.

- 10. In order to test the validity of our approach and also to combine our perceptions of the problems of teacher-education with those of others working in the field, we have held several free and frank discussions with individuals and groups. By and large, it is found that there is a general desire for change in the programmes of teacher-education at all levels. It appeared to be more pronounced at the primary level. The opinions on the details of the changes to be effected showed some variation, but changes in the goals and practices of teacher-education were desired by practically everyone. vatism did appear on the scene from time to time. Surprisingly enough, it was most apparent, side by side with radicalism, at the secondary level. At the pre-primary level, conservatism was the least in evidence. These two levels, moreover, were not restricted in their programmes by any set ideology. The secondary level which is controlled by the university, enjoys a fair degree of academic freedom. There is a refreshing flexibility in the practices at the pre-primary level. However, teacher-education at the primary level has acquired a rigidity of goals and practices, verging almost on stagnation. It has been shy of responding to the changes which have taken place rapidly in the socio-economic goals of the country and has chosen to remain unmindful of many a newly emerging useful trend in the professional preparation of teachers. Teacher-education at the primary level, therefore, happens to be our real problem area.
- When we had finished reviewing the course of development, present position and viewpoints on the problems of teacher-education, we realized that our findings could not strictly adhere to the arrangement of problems as outlined in the terms of reference. The new directions in teacher-education adopted elsewhere, viewed together with our own findings, appeared to yield clearer findings when arranged according to the important factors that impinge upon the quality of the teacher. We, therefore, made an attempt to identify the major variables involved in maintaining and enhancing the quality of teachers and set them up as our guideposts for classifying the conclusions and recommendations. Further, after having given some thought to such problems as the education of tribal teachers, women teachers, preparation of norms for physical and material facilities and so on, we became convinced that the information available to us on these problems was not adequate for arriving at clear conclusions and making definite recommendations. These are problems which require considerable investigation in order to locate the exact points of deficiency and the likely measures for reform. As this task is more a matter for research than for the deliberations of a committee, we have only suggested that the problems need a thorough study.
- 12. While we were discussing our tentative recommendations, we keenly felt the necessity for the creation of a competent body which would undertake the implementation of the recommendations of committees like ours

and also evolve an active system for periodically evaluating and reorganizing teacher-education in a co-ordinated manner. At present, teacher-education happens to be at a point where it cannot be entirely under the control either of the Department of Education or the Universities. We, have, therefore, emphatically reiterated the recommendation of several all-India committees to create a State Board of Teacher Education for the organization and supervision of teacher-education in the State. This arrangement would be the most suitable at the present juncture. If the patterns and programmes of teacher-education in the State are to be fruitfully integrated, in accordance with the preamble of the G. R. which appointed this Committee, the establishment of this Board would prove to be a big stride forward towards the desired integration. No new programmes, designed to overcome the inertia of traditional practices can either be implemented or accelerated through the instrumentality of traditional agencies. New visions and fresh energies come into play only when a new agency for social change comes into existence. By the very reason of its birth, it releases strong currents of change into its field of operation and galvanizes it into fresh activity. Therefore, if the programmes of teacher-education in the State are to be integrated, upgraded and revitalized, the State Board is the first and foremost point for urgent implementation. It is only in the wake of this reform that all other desirable changes in teacher-education can enter the realm of attainability.



CHAPTER ONE

THE QUEST FOR QUALITY

- 1.1. In raising the cry for "quality teachers", we are not alone. All developing countries and even some of the advanced countries are gripped by an anxiety to secure new teachers of quality and to upgrade the quality of those already in the profession. The growth of science and technology has been so phenomenal in recent years that it has set into motion radical changes in the very nature of the social organization of old and new nations and compelled them to review and recast their patterns of living into appropriate new moulds. Readjusting the educational system and placing it into the hands of teachers who are sufficently able and trained to make it an instrument of social change is the most important measure for answering the challenge of this "Age of Science". It would be useful for us to know the thinking so far done by others on the origins of the challenge of change and the method for grappling with it successfully.
- The Post-war "explosions".—During the past 20 years, the world has been witnessing three kinds of "explosions" which actually are an aftermath of World War II.- (i) the explosion of knowledge resulting from the intensive research in science and technology conducted in the interest of winning the War; (ii) the explosion of rising expectations in the developing and partially developed countries which became independent after the War; and (iii) the explosion of population all over the world. The first two explosions have caused an unprecedented educational unsettlement even in the advanced countries. Their current educational systems are being re-examined by educationists and social scientists to meet the challenge of the explosion of scientific knowledge. Moreover, the developing countries are pressing them for technical and economic assistance to meet the explosion of the rising expectations of the newly independent people who want a better living-standard and more education. Since education is the prerequisite for economic productivity and removal of economic backwardness in this scientific age, economists are insisting that education should shed its traditional role of preparing "gentlemen of leisure" and instead, produce skilled workers in every sphere of Ife. They have emphasized the need for teachers of quality. Educators, economists and other social scientists from the advanced and developing countries have been doing considerable joint thinking in recent years for devising an educational system that would face all explosions squarely and prevent an accentuation of the harmful imbalances in the economic and cultural conditions already prevailing between advanced

and developing countries. As economic imbalances inevitably cause political imbalances, the attention of thoughtful politicians also is gravitating towards the quality of education and the need for securing able teachers who can raise and maintain quality.

1.3. The Quality of Teachers.—Though a remodelling of the content of education is essential for its qualitative improvement, it has become obvious that a revised curriculum can be of no avail if teachers possessing the requisite scholarship, skills and vision are not available for putting it across. concern over the quality of teachers is, therefore, increasing. It is equally appearent in both advanced and developing countries. Dr. D. S. Kothari, Chairman of the Indian Education Commission, once observed that the teacher is "the single most important element in education." The World Confederation of the Organizations of the Teaching Profession declared in 1963 that "The essential condition for Quality Teaching is a Quality Teacher". Naturally, therefore, much is being done in the advanced countries to ensure the quality of teachers. Increased years of general education, better recruitment, intensive professional preparation and provision of opportunities for further academic and professional development, are some of the chief measures taken for raising it. In the United States, the teaching profession itself has begun to insist on enhanced certification requirements for its members. Though the problem of growing enrolments and shortage of teachers faces even the advanced countries, their insistence on securing better prepared teachers is on the increase.

The demand for better teachers is growing stronger because education is now viewed as an investment in the development of human resources for ensuring economic growth. However, if education is to be considered as economic investment, it must have a "sterling value". In addition, all its potential must be efficiently utilized. It must, therefore, proceed according to clear plans and phased schedules; function under the vigilant care of a highly talented body of administrators and supervisors; have physical facilities and equipment which save labour, increase speed of learning, promote its precision and ensure a finished educational product; be tackled by well-trained teachers possessing enough skills and motivation to utilize every factor that can maximise educational attainments and minimise the costs. Everything considered, it is the quality of the teacher that would ultimately decide whether education is going to be a real investment or To-day, therefore, if there is any point of social policy on which the economists and thoughtful educators are in complete accord, it is the need for teachers of quality.

1.4. Variables of Quality.—Though the quality of the teacher is, without question, the key-stone of the edifice of effective education, several other Na 5700 -2a

factors are also involved in the harmonious construction of this edifice. If they are not available in adequate proportions, the quality of the teacher can neither be maintained nor utilized to the maximum extent. Such factors, therefore, have to be viewed as the variables that impinge upon the quality of teachers, and considered critically while planning to raise the quality of teachers. The important ones among these may be identified as follows and considered one by one, in relation to our situation:

- A. Traditionalism in education
- B. Content and method of school education
- C. Composition of the teaching profession
- D. Administration and control of the teaching profession
- E. Organization and supervision of teacher-education
- F. Physical and material conditions of teachers' colleges
- G. Curricula of teacher-education
- H. Techniques of teacher-education
- I. Quality of teacher-educators
- J. Duration of teacher-education courses
- K. Opportunities for professional development
- L. Appropriate planning of teacher recruitment and teacher-education
- M. Research and advanced studies in Education

A. TRADITIONALISM IN EDUCATION

The role of education as the producer of scholars, social reformers, high officials and white-collared workers usually becomes so firmly entrenched in a traditional society like ours that its new role as the producer of scientists. inventors, technologists, agronomists, skilled industrial workers, and innovators in all walks of life, cannot be easily grasped. In traditional education, the teacher has had only to keep the class engaged in completing the prescribed curricula and making the studies simple enough to enable pupils to pass their examinations. Apart from this, there is also a vague expectation that teachers should transmit the cultural heritage of the society and build up "the personality and character of the pupils", mostly through some co-curricular No special efficiency in modern instructional techniques or insights into the productive functions of education are expected of them, because education is looked upon as a means for entering government service, white collared occupations, political activities—in short, a life of few exertions and many advantages. Educational institutions are more a symbol of social prestige than instrument of socio-economic change. The growth of such institutions, in recent years, has only served to consolidate the traditional character of our education.

In the societies which are already modernized, it is easy to readjust the roles of the educational system and its teachers to meet the demands of socioeconomic changes. But in the developing countries which are still largely traditional, the task of changing the goals and structure of education, as also the roles and functions of the teachers, is not simple. For them, the new function of education as an instrument for attaining the national goals which stand conditioned by the twin impacts of science and technology on one hand and the increasing complexity of international relations on the other, is not easy to understand. Moreover, the emotional security of traditional societies lies in their inertia and, therefore, all changes which are likely to disturb it are viewed with suspicion and fear. familiar, is safe. Changes require readjustments of habits. This calls for much mental effort for which the tradition-ridden mind has a distaste. It, therefore, resists innovations either by calling them unpractical and ignoring them, or indulging in hostile criticism against them, or simply ridiculing them. Unless measures for reform are wrapped up in a traditional packing, they cannot be made acceptable. All this applies to the problem of creating a receptive social atmosphere towards the new roles and quality of teachers. The reluctance to accept new reforms in teacher-education has to be viewed from this standpoint and suitably tackled.

B. CONTENT AND METHOD OF SCHOOL-EDUCATION

If innovations are to be successfully initiated, the traditional methods of education must be clearly seen and examined. Even a cursory glance shows that at the post-preprimary levels, the system expects the student to cram from prescribed text-books, and correctly answer examination questions. Teaching means either lecturing, dictation of notes or mechanical questioning to "elict" information. Examinations are designed to test what the student does not know. The efficiency of a teacher is assessed from the number of students he can push through an examination regardless of how much he manages to teach them or they manage to learn through this process. When curricula are revised, they merely receive an addition of more subjects or more topics. The meaning of "standards of education" is rarely examined from the point of view of what the given type of education is expected to achieve, at the particular stage of education for which it is prescribed. Most of the students and teachers involved in th's system continue to go through the courses without knowing why they are studying the prescribed curriculum. The over-emphasis on the use of books at the higher levels is counter-balanced by an over-emphasis on the "activity method" at the primary level. It more or less rejects the connection of books with experience and active learning. Such extremes of "experience centred" methods which underestimate the utility of books are as unhelpful as extreme bookishness. The fact that there is no logical antagonism between books and experience

or between the natural environment and the class-room, is often lost sight of by many of us. We find that either the first or the second tradition is firmly defended, mostly from an emotional concern for its stability. This causes a confusion about what teaching techniques a good teacher should adopt.

C. Composition of the Teaching Profession

In a developing country subjected to the impact of the explosion of rising expectations, a rapid increase in enrolments and institutions becomes inevitable. The shortage of well-educated persons, however, compels the country to recruit poorly educated persons to meet the speed of expansion. At the primary stage where the expansion is the greatest, such recruitment assumes a vast size. The low educational attainment of the teachers results in an increase in the failures and "drop-outs" of pupils. Much of the large financial provision for primary education is thus wasted. Even those pupils who somehow manage to pass examinations know very little except those parts of their text-books considered "important for answering examination questions". The snippets of confused information gathered by them fail to serve as a base for replacing their traditional habits of work by the new skills required for developmental activities. At the primary stage, teacher-costs consume most of the financial outlay and very little is left over for the supply of satisfactory physical facilities and teaching aids. But even if finances were available for provision of effective teaching-aids, they would lie idle unless teachers who can use them are provided. Educational economists have therefore, emphasized the need to recruit teachers who have at least completed secondary education, in order to introduce the use of new teaching aids and effective techniques of instruction, which would reduce failures and wastage. The application of such techniques as visual aids, programmed learning, instruction by radio and television and the use of modern curricula and text-books depends on the quality of teachers. Their effective use cannot be expected from persons who do not possess enough academic knowledge of the technical process involved in them. with technical knowledge, the teacher must possess appreciation of the discard traditional methods. The minimum academic preparation of the members of the teaching force in a developing country, therefore, has to be the completion of secondary education. If such teachers are appointed, the costs of primary education can be kept down by maximising the services of a small group of more highly talented and trained personnel.

New instructional techniques are usually devised by an imaginative educator, in special institutions, with a selected group of pupils, and with all the advantages of a controlled, purposeful environment. They, therefore, rarely fail to produce good results. But when they are used out of the situational

context, difficulties begin to arise. When applied throughout the educational system, they fail to produce the desired results. The blame for failure is then placed on the teachers and as many other people as possible, who are charged with conservatism, laziness, lack of faith and antagon sm. But the truth of the matter is that the technique fails because the majority of teachers lack the educational back-ground, motivation, atmosphere and support with which the original experimenter is normally blessed. It is, therefore, the nature of the composition of the teaching force, more than the availability of new methods or technical aids, that determines the feasibility of utilizing them, New techniques, particularly the radio, film, taperecorder, television, programmed instruction and so on, would surely reduce the cost of schooleducation and make teaching more effective. But the condition precedent for this benefit is the upgrading of the teaching force. Such a step generally raises the initial costs. However, the effectiveness of education can thereby be safeguarded. The costs become reduced progressively because, with a better equipped teaching-force, more children can be taught by fewer teachers. Thus, the factors of the basic attainments and nature of techniques are jointly related with the quality of a teacher's performance in the class room.

D. Administration and Control of the Teaching Profession

The quality of administration and the nature of the control exercised by it on the teaching profession, are important determinants of the quality of teachers. The procedures for the selection, promotion and supervision of teachers determine their status and morale. The nature of control—its ilexibility or rigidity, impersonality or personalization of management procedures—substantially contributes to the maintenance, increase or decrease of the qualitative performance of teachers. If the quality of teachers is to be assured, administration must provide them not only with the security of service—conditions which offers legal protection and redress, but also with the security that is generated by opportunities for professional improvement and advancement.

The quality of supervision directly affects the quality of the teachers' work. When able inspectors and supervisors impart to the teachers a continuous "on-the-job" professional training, they not only ensure instructional efficiency but also imbue the teachers with dynamism. The academic and professional competence of inspectors must be high enough to enable them to solve the instructional and professional problems of teachers. When qualifications of teachers are raised in the interest of quality, there has to be a corresponding upgrading of the quality of the supervisor. If this does not happen, the supervisory staff leans more towards supressing the quality of the teacher than

maintaining or improving it. Evidence of such unhappy relationship between teachers and supervisors is by no means lacking in the present situation.

The motivation for better professional standards cannot develop simply through such administrative measures as increase in salaries and benefits. Provision of facilities in the school to do good work, encouragement and guidance from supervisory staff, removal of professional isolation by means of a greater participation in the activities of teachers' organizations, are some of the factors that can produce adequate professional motivation. factors have been recognized quite early by the organizers of business and industry. It would be useful to take a leaf from their note-book, if teachers are to be motivated for a better performance. The status feelings security of a worker in any field are increased by five factors: (i) being continuously well-informed about one's work, (ii) getting chances to be creative in one's tasks, (iii) availability of material resources to increase and demonstrate ability, (iv) existence of avenues for communicating new ideas and receiving due recognition for them, and (v) getting chances to engage in some activity which is not directly related to the job and in which the worker can express himself with full freedom simply as a citizen. Industrial enterprises have been rapidly increasing the morale of their workers and their out-put through these motivating approaches which are based on the need for all human beings to find satisfaction in expressing and asserting themselves. That "Man does not live by bread alone" is ture of every profession. In addition to the "bread" which nourishes his body, man needs a substantial mental nourishment for maintaining the vigour and vitality of his spirit. It is this spirit which is ultimately reflected in the teacher's professional performance. सत्यमेव जयते

E. ORGANIZATION AND SUPERVISION OF TEACHER EDUCATION

On account of the difference between their medium of instruction and entrance qualifications, our secondary and primary teacher-education programmes have grown along divergent lines. The medium of English brought secondary teacher education under the control of the universities and the use of the regional language kept primary teacher-education outside their portals. To-day, this difference of medium has disappeared, but the separation of control remains. One more reason why primary and pre-primary teacher-education could not be placed under the universities was their admission of non-matriculates. The entrance qualification to the universities has been matriculation, now the S. S. C. Even though the admission qualification to pre-primary and particularly primary teacher-education courses has been raised to the S. S. C., in many instances, they still continue with the Education Department, instead of being transferred to the University, as a matter of historical tradition.

The tone of teacher-education institutions is undoubtedly set by the traditions of the agency which controls them. Organized and managed by universities, the courses for the professional education of the secondary teachers have largely remained free from restrictive ideologies and practices. courses for primary teachers have, however, been designed from time to time according to definite ideological patterns. At the secondary level, there has been a trend towards raising the academic qualifications of the staff and increasing their participation in the revision of the professional curricula and practices. During the last 10 years, their contacts with schools have increased through the extension services. At the primary level, on the contrary, the qualifications of staffs show a lower trend; their participation is not expected in devising the training programmes; and extension services are yet to spread among them. The absence of an agency for co-ordinating the organization of our teacher-education programmes has given rise to two closed systems of teacher-education, one under the universities and the other under the Education Department. Between the two, there is hardly any mutual consultation and pooling of resources. Consequently, it has not been possible for the state to work out plans for an integrated improvement of school education and the quality of teachers.

While the institutions functioning under the Department are regularly inspected for maintenance and improvement of standards, no such provision exists for those functioning under the universities. The Department decides the teacher requirements before starting new institutions, but it does not similarly plan the institutions at the secondary level. If the policies for the provision of facilities for teacher-education and its improvement are jointly formulated by all the controlling agencies, a mutually agreed standpoint can be taken on the minimum standards of attainment and the qualifications of teacher-educators at different levels.

F. Physical and Material Conditions of Teachers' Colleges:

In the education of teachers, as elsewhere, the learning that takes place is as much environmental as curricular. The physical and material conditions in teachers' colleges affect the quality of the curricular work of the student-teachers and also influence their professional attitudes. The conditions in which they live and work during their training influence their status feelings as teachers, affect their concern for social values, shape their view-points on school-education, and decide the degree of motivation for seeking satisfation in their profession. It is true that the buildings, furniture, equipment, apparatus and teaching aids required for carrying out professional studies cannot be provided without funds. But the necessary funds have to be provided if teacher-education is to attain its objectives. Durable and functional buildings, suitable furniture, equipment, laboratories and libraries, clean and comfortable hostels, are amenities which contribute substantially

towards effective teacher-education and help to raise the status and quality of teachers.

G. CURRICULA FOR TEACHER EDUCATION

The effectiveness of the curricula for teacher-education is contained only partially in the topics of the syllabus. Most of it lies in the manner in which the different elements in the total professional programme are interconnected. Professional education is firstly intended to adjust the teacher to a given philosophy of education, and secondly, to help him grasp the techniques of class-room teaching. But, if the teachers are to make education meaningful, the professional programme must provide for them something more. It must give them an insight into the problems of their country, acquaint them both with the pain and pleasure inherent in the profession of teaching, open out for them many an avenue for self-expression, offer them a chance for the cultivation of their special teaching talents and lay a broad foundation on which they can build a personal and professional life of intellectual, emotional and aesthetic satisfaction. Professional education must also enable teachers to intellectually appreciate the cultural values which have to be guarded and promoted in an age dominated by science and technology and help them to feel the call of art, music and literature. If professional education is to prepare teachers who can build up the physical and mental health of children, it must first undertake the task to ensure such health for teachers. But such a development of teachers cannot be fully attempted through a formal institutional course. Teachereducation, has to be a life-long process in which the teacher remains a perpetual student. It is these wider viewpoints on curricula and courses that ensure "quality teachers". सत्यामेव जयते

H. Techniques of Teacher Education

The student-teacher is a professionally motivated adult and cannot be subjected to the treatment and educational process intended for school pupils. The individuality of the student-teacher is fairly developed by the time he enters a teachers' college. He cannot be easily impressed with ideas and sentiments which are not in accord with his knowledge of life and the place that he would normally be assigned in society. Whatever the reasons, he is an individual who has finally made his occupational choice. The techniques of teacher-education have, therefore, to take into account his social maturity, professional expectations, and the need for adjusting his attitudes and values to the objectives of education. But the traditional methods of teacher-education treat him and a student of general education almost alike. There is hardly any difference in the planning and organization of the programme of teachers' colleges and colleges of general education.

Superfically acquainted with the foundations of education and bored by the monotony of mechanical practice lessons, the student-teachers leave the colleges only to undertake their teaching tasks with reluctance and diffidence.

I. THE QUALITY OF TEACHER EDUCATORS

The improvement of teacher-education can be accelerated if emphasis is placed upon changing three major factors:—(i) teacher-educators, (ii) student-teachers and (iii) curricula. The first factor is very important because the teacher-educators are in the strategic position of spreading among the teachers new ideas and techniques. A systematic effort to concentrate on the upgrading and reorientation of teacher-educators would certainly be the best strategy for achieving liveliness and quality in teacher-education.

Educational expansion cannot reduce the quality of education only if teachers and teacher-educators are persons with adequate qualifications. The strategic value of teacher-educators in introducing and sustaining the process of change in education is also so outstanding that the attention paid to it invariably promotes the quality not only of teachers but of education as a whole.

J. DURATION OF TEACHER EDUCATION COURSES

In a good preservice professional programme, the tempo of work has to be kept high through plenty of daily activity and its sustenance throughout the year, with very few and only short breaks for holidays. Still, the courses cannot be overcrowded with an excessively heavy daily time-table. If an attempt is made to contain them into a very short span of time, they get implemented mechanically and their heetic pace leaves the student-teacher no time to absorb their real significance. In such a case, training usually becomes a meaningless drudgery and instead of promoting the right values and attitudes, leaves in the student-teacher's mind the unpleasant memory of the continuous grind of work he had to put up with. The plain truth is that professional values and attitudes cannot be taught. Their understanding is to be achieved by a person through self-effort, by analysing a large number of inter-related professional experiences. This process takes a considerable time. It is for this reason that the duration of a teacher-education programme constitutes an important variable in determining the quality of teachers.

Proper professional attitudes are the motivators of the skills of the teacher. Neither attitudes nor skills can be acquired by him without close observation of children, discovering the problems involved in class-room instruction noting how they are influenced by other general aspects of the work in the school, attempting to find original solutions to the problems

through their discussion with colleagues, and resorting to experimental measures. The educational skills required in the teacher can develop only when a continuous practice is given to him in observing and solving all types of problems involved in educating the child. Further, in a predominantly rural country, the question of school-community relations has to be clearly understood by the teacher through direct experience, even for the successful implementation of class-room instruction. Such experience cannot be gained except by living in the community for some time and organising school-community programme.

In this process of educational discovery, the teacher has also to first discover his own inclinations and aptitudes for the profession of teaching. He has to learn to understand himself in relation to his different functions as an educator of children and a community educator. The teacher-education programme thus involves a study by the student-teacher of (a) himself, (b) his pupils, (c) their parents, (d) the school as an organization and (e) its relationship with the community which it serves. Though it is true that the preservice programme is only an initiation into the profession of teaching, it must involve the study and understanding of a large number of problems which are concerned with human beings of different types. This understanding cannot be achieved in a short span of time and even the initiation period has to be fairly long. The adequate duration of the preservice professional courses, therefore, has been taken to be at least two years for entrants who have completed graduation and 3 to 4 years for those who have completed secondary education. It is considered to be bad educational economy to save money on the preservice programmes by shortening them. If the preservice programmes send out teachers who are not properly motivated and whose value orientation is vague, the objective of developing the pupils into "human resources" necessary for the country's advancement cannot be served.

K. OPPORTUNITIES FOR PROFESSIONAL DEVELOPMENT

The programme of preservice teacher-education serves only as induction into the teaching profession. It is the starting point for the teacher to further increase the depth and breadth of his professional knowledge by means of independent study and courses of inservice education. For the maintenance of the efficiency of not only teachers but all educational personnel, new knowledge about education has to reach them continuously and as quickly as possible. A wide variety of programmes is necessary to enable everyone to keep abreast of new knowledge and to advance in their professional career through a readjustment of their outlook and skills. The programmes have also to be suited to the kind of location into which they have to work, so that the fact of their being posted in an inconvenient place does not prove to be a handicap in further professional studies.

The role of the professional organizations in conducting the in-service education of their members is very significant. Ultimately, in any walk of life, it is the worker himself who has to decide that he shall spare no effort to raise the quality of his work and keep it dynamic. If such a decision does not come from him, external efforts for raising his quality can only have a partial utility.

The programmes of professional development should not be strictly limited to the elements in the job. They should offer scope for the development of special talents and interests also. A person whose self-esteem is based on achievements not directly concerned with his job, is emotionally more secure and can look at his job-performance more objectively. This has a beneficial effect on his total efficiency. Members of the educational personnel, therefore, have to be given encouragement and opportunities to become versatile individuals, interested in many areas of knowledge and skills conducive to personal satisfaction through self expression. Unless teachers themselves develop creative hobbies and take a wider interest in the variegated activities of life, they cannot enthuse their pupils to explore the vast fields of knowledge and to engage in scientific and creative pursuits.

The in-service programmes cannot be effectively implemented without the aid of books, journals, audio-visual equipment and field experience relevant to the area of study. They have, moreover, to provide a series of new information and skills for constantly readjusting the practitioner of education to new concepts and practices. It is only through their dynamic character that the in-service programmes can ensure dynamism in the functionaries engaged in educational tasks.

L. Appropriate Planning of Teacher-Recruitment and Teacher Education

Educational planning has recently come in for considerable attention, particularly for solving the problems of developing countries. In the past, the growth of the educational system used to be viewed as the promot on of several unrelated schemes for the improvement of some sector or the other which either exhibited a large number of deficiencies or called for greater attention on account of public demand. The concepts and procedures of educational planning are not yet fully evolved, but are fairly clear to those who are anxious to apply the scientific method to the problems of education. If the practice of preparing schemewise programmes on a numerical basis without going deep into their relationship to the quality of education, is adopted and if other factors such as the location of the schools, the nature of the population in the area, its educational needs, the stage of advancement which it has reached, and several such matters remain outside the pale of schemes, planning becomes ineffective. At present the requirement of the

curriculum rarely figures as an essential factor in deciding teacher-requirements, either in recruitment or output of teachers' colleges. The basic qualifications, level of maturity, and professional skills of teachers, which are factors closely related to the effective implementation of the curriculum, are lost sight of in the clamour for numbers. Though it is well known to observers that several persons who get recruited as teachers, particularly at the secondary level, leave very soon to join other occupations, hardly any estimates of the present holding power of the profession are made as yet. While drawing up the numerical requirements of teachers, the extent of this wastage is rarely calculated. Criteria for preparing the estimates of teacher-recruitment and provision of facilities for teacher-education, for the various stages of education, are now indispensable for ensuring the quality of recruitment and teacher-education.

It is common experience that desertions from the profession take place in a larger measure in some areas than others. The causes for this situation have to be studied in order to overcome them through a proper planning of the location of educational institutions. It is found that educational units below a certain size serve as a drag on the educational system because they are uneconomical and inefficient. Specific studies in this respect are needed for the full utilization of the funds invested in setting up schools and colleges. In regard to the teacher-education programmes, proper location of the institution is a very important matter particularly for the implementation of the programme of practical work. Enough schools have to exist around the institution, within a reasonable distance, for the convenient placement of teachers and systematic supervision of practical work. Norms for the size and location of institutions of all types are essential if their establishment is to contribute to a successful educational programme. The availability of staffs of the right type for implementing the curricula of Secondary Schools, Teachers' Colleges, Arts and Sciences Colleges and Professional Colleges, is a major factor for deciding on one hand how many institutions should be started to suit their availability and on the other for instituting measures for preparing the required staff, if a certain number of institutions are to be started within a given period of time. The estimates of teachers and teachereducators have to consider the curriculum in terms of the hours required for its completion in a given span of time, together with other factors which figure in the calculation of work-loads and teacher-student ratios. Briefly, planning for quality in teacher requirements and teacher-education has to take into consideration three major factors: (a) type of institutions to be established, (b) the curricula to be implemented and (c) the kind of teachers needed for implementing the curricula.

M. RESEARCH AND ADVANCED STUDIES IN EDUCATION

Such planning is possible only through a close and continuous study of the field problems of education. The goals of education have to be viewed in terms of the availability of resources, before the planner can decide the time and effort required to bring them within the range of " attainability ". The developmental needs in education have to be necessarily related to finances and human resources. But priorities must be decided on the basis of the potential of one factor to influence another. The most influential factors, particularly those with a radiation effect such as teachers, need to receive concentrated attention in order to avoid the scattering of resources over many of the unrewarding areas. Applied educational research in administration, finance, effectiveness of the curricula in achieving their objectives etc. is essential to give a sound basis to educational planning. Failure to anticipate the problems thrown up by expansion and lack of readiness to meet them, affect the quality of education adversely. Dealing with these problems squarely is as important as supplying the educational system with teachers of quality. The conduct of much of the urgently needed educational research and preparation of highly trained researchers and university teachers in education, is usually the work of University Departments of Education and Centres for Advanced Studies in Education. A very close correlation exists in the quality and extent of work done by such academic bodies and the quality of teacher-education.





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PART II

DEVELOPMENT AND PRESENT CONDITIONS OF TEACHER EDUCATION

A brief review of the development of teacher-education in the State is presented in Chapters Two to Five, together with a fairly detailed statement of the existing conditions and problems of teacher-education at each level. The analysis of the present conditions is based on the findings of detailed statusstudies of teacher-education institutions and the consensus of opinion available in the reports on the conferences of principals of pre-primary, primary and secondary training institutions organized in the State in 1964-65 Chapter Six indicates the existand 1965-66. ing provision for in-service education programme and out-lines the course of action for their further development. Chapter Seven describes the quantitative and qualitative picture of teacher-supply in Maharashtra, on the basis of the latest statistical information for the State. It also makes reference to a few all-India figures for the purpose of a comparative perspective.

CHAPTER TWO

THE TRAINING OF PRE-PRIMARY TEACHERS

A. Development

2.1. Lead by Private Effort.—Maharashtra is ahead of other States in the expansion of pre-primary education and provision of training facilities for pre-primary teachers. It has the signal honour of having nearly one-third of the total number of pre-primary training institutions at present functioning in the whole of India. The percentage of trained pre-primary teachers in the State is 64, the highest in the country. The most noteworthy aspect of the State's leading position in this sector is that it has been almost entirely due to the effort of devoted workers from private organizations.

The report on the Integration and Development of Primary Education in the State of Bombay (1958), had made a special mention of the progress of pre-primary education in the State by pointing that "Although the public interest in pre-primary education is not very old, it must be admitted that pre-primary education has made considerable progress in this State, especially in comparison with other States of the Indian Union". Maharashtra has had the privilege to continue to maintain this lead, mainly through the persistent and dedicated labours of social workers, among whom Padmabhushan Smt. Tarabai Modak is the most prominent. A pioneer in this field, she has influenced the pre-school education movement not only in this State but throughout India. But for the sustained interest and effort of outstanding individuals such as Smt. Tarabai Modak and Mayadevi Bhalchandra and the support provided by the organizations built up by them, the growth of pre-school education and pre-primary teacher-training in the State would most probably have remained quite limited.

2.2. The Role of the State.—The role of the State in the field of preprimary education has been frankly restricted to providing more appreciation than funds. This has been due not to any disinclination to promote preprimary education but to the meagre financial resources for education which necessitate many a harsh decision on priorities. The phenominally large demand for universal primary education which imparts literacy and the minimum tools of further education, has compelled not only our State and our country but every developing country to postpone the promotion of pre-primary education. However, even though the role of the State in directly promoting pre-school education is likely to remain a minor one for some years to come due to financial difficulties, it has contributed what little it can by recognizing the importance of pre-primary teacher-training, Lately.

this recognition has been on the increase. This was demonstrated when a platform was provided by the State Institute of Education to the pre-primary training institutions to come together to discuss their problems in a conference which the Institute called in March, 1965. It is significant to note that after nearly thirty years of work in the field of pre-primary teacher-training, this was the first effort made by an agency of the Education Department, to bring the institutions together to do some co-operative thinking on their problems. This is definitely an encouraging step.

B. Existing conditions and problems

The General Position.—During 1965-66, the State Institute of Education conducted a Status Study of the Pre-Primary Training Institutions (12 in all) in Maharashtra. Its objective was to find out the factual position about their buildings, equipment, student-body, staffing, and curricular work. As one institution did not reply to the questionnaire, the coverage was restricted to 11 institutions only. Of these, one institution (at Nagpur) is managed by Government and the rest are managed by private organizations. The institution called "Grama Balasevika Vidyalaya" at Kosbad, District Thana, receives assistance from the Central Government, while the remaining are assisted by the Department of Education and Social Welfare, Maharashtra State. As a rule, these institutions admit women candidates, but there is one exception in Dhulia which admits men also. The number of men students, however, has been steadily decreasing. It fell from 52 in 1963-64 to 23 in 1964-65. Most of the institutions are not able to fully utilise their intake capacity. Of the 650 seats available in 1963-64 (30 in the Government institutions and 620 in the rest) 125 remained vacant. In 1964-65, out of the 790 available seats, 161 remained unutilized.

There are two types of courses for awarding the Pre-Primary Training Certificates. The P. S. C. passed entrants have to undergo a two-year course and the S. S. C. holders have to put in only one year.

2.4. Buildings and Equipment.—The position regarding furniture and equipment varies from institution to intitution. The provision of library facilities, however, leaves much to be desired. All institutions taken together, the number of books comes to 2,231. The size of book-stock ranges from 40 to 653. Only one institution has reported the availability of an independent librarian.

Nearly all the pre-primary training institutions (except the one at Kosbad) are located in urban areas. Of these, 8 are situated in middle class localities. They draw the majority of their students from the locality itself. Locations of this type generally make the provision of hostels unnecessary. Still, 5 institutions provide hostels, mainly for the convenience of trainees drawn from among deserted, destitute and rural women. Only 3 insummons have

buildings of their own. The rest are housed in rented buildings, shared with practising schools. Inconvenient accommodation has been reported by 4. Only 5 colleges have reported sufficient and convenient accommodation.

2.5. Trainees and Staff.—The age limit for admission to pre-primary training colleges is between 18 and 35 years. In the rural areas, the candidates are often closer to the upper age-limit.

The staff of a pre-primary training institution is treated as on par with that of a primary training institution/secondary school, in respect of qualififications. The Principal has to be a trained graduate with additional training or experience in pre-primary education. One other member of the staff, also a trained graduate, is expected to have some acquaintance with pre-primary education. Nearly half the staff works full time and the test works part-time. Special teachers for Art, Music, etc. are usually part-time workers. (Only two colleges reported full-time special teachers for Drawing and Handicrafts). The average workload of a full-time teacher is about 28 hours per week and that of a part-time teacher around 14 hours per week.

2.6. Duration and Curriculum of Training.—The duration of the pre-P. T. C. course is one year for S. S. C. holders and two years for P. S. C. passed candidates. The curriculum consists of pedagogical subjects, content subjects and practical work (including practice teaching). The details of the existing syllabus which has been prepared by the Education Department, are as follows:

PART I—(THEORY)

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(0)	For	vear	course
1/21	rur i	veur	course-

(i) Child Psychology		•••	100 Marks
(ii) Theory & Practice of I	Education		100 Marks
(iii) School Management &	Child Health		100 Marks
(iv) History of Pre-Primary	Education and	Edu-	100 Marks
cational Topics.			

(b) For 2 years course [In addition to (a) above]—

(i) Language Paper I	•••		50 Marks
(ii) Language Paper II	•••		50 Marks
(iii) Social Studies		•••	50 Marks
(iv) General Science			50 Marks
(v) Hindi			50 Marks

Note.—These five 'content' papers are common for the pre-primary course and the primary training course for the P. S. C. candidates. Method questions from these papers, however, are not compulsory for the pre-primary candidates.

PART II--(PRACTICAL)

- (i) Practical Examination
- (ii) Oral Examination
- (iii) Year's work

Adjustments have necessarily to be made in putting across the pedagogical subjects in the one year course for the S. S. C. holders who have a greater maturity and more academic preparation than the P. S. C. candidates studying in the two years course.

Practical work is the most important aspect of pre-primary teacher training. The trainee has to learn to guide a variety of activities in child-education and to prepare a large number of educational aids. Child-observation is an important aspect of practical work. In all, 30 class-observations of children have to be carried out with detailed observation of at least two children—one boy and one girl. Besides, every candidate has to give at least 20 lessons, observe 20, and attend 40 demonstration lessons. The supervision of the work of the trainee is done almost entirely by the staff of the institution but a trend has now begun towards enlisting the assistance of well qualified teachers from the practising schools for supervising some of the training activities. Every training institution has its own practising demonstration school.

2.7. The Knotty Problem of Employment.—The State policy to provide grant-in-aid to pre-primary training institutions has, no doubt, resulted in the increase of their number but the problem of attracting a sufficient number of trainees remains to be solved. Lately, it has assumed a serious form due to the uncertain employment prospects of trained pre-primary teachers because of the proliferation of unrecognized pre-primary schools which rarely welcome trained teachers. Further, these trained teachers are not treated as on par with trained primary teachers and are also not held eligible for teaching the lower primary standards.

It has been agreed by all educationists that on account of the child-centered approach and appropriate teaching techniques which are emphasized in the pre-primary training course, pre-primary trained teachers would be more suitable for teaching Stds. I and II. We definitely share this view and also hold the opinion that pre-primary trained teachers, the majority of whom are women, would succeed in making the school attractive for the new entrants. The recognition of the eligibility of trained pre-primary teachers to handle Stds. I and II would bring a double benefit: (i) solution to the employment problem of these teachers and (ii) better attendance in Stds. I and II which may reduce the present high proportion of wastage.

2.8. Grant-in-aid.—Another very important problem in this context is the illogical distinction made between the grants to primary and preprimary training institutions. At present, three kinds of grants viz. maintenance, dearness allowance, and equipment grants are paid to these institutions at 50 per cent, of the approved expenditure on these items, with slight modifications in the case of the training institutions in Vidarbha. This distinction must be removed and equal treatment given to pre-primary and primary training institutions.

Among the inspecting officers of pre-primary schools and training institutions, there are none who are really qualified either to guide or assess their work. Effective inspections require that inspectors should have a background of specialised training in pre-primary education and preparation of teachers. Not only inspections but the conduct of examinations is entrusted to these untrained officers. It need not be pointed out how anomalous this situation is and how great is the need for the proper orientation and training of inspecting officers.

2.9. Text-books and Teaching Aids.—Pre-school education is mostly 'education activity and it needs a variety of aids and material', as a means of activity. At present the supply of the required material is insufficient and the quality of the articles is often unsatisfactory. In order to equip the pre-primary schools adequately, some earnest thought may have to be given to the arrangements for the production and distribution of aids and equipment on a large scale. The present unsatisfactory quality of the equipment may have to be removed by insisting that instructional material should be standardised on scientific lines and produced in large quantities, so as to be supplied to schools at moderate rates. This will prevent the dealers from exploiting the managements of pre-primary schools. In order to supply the manufacturers with systematically prepared models and prototypes, the preprimary training course should emphasize the preparation of improvised teaching aids from the material available locally and the local craftsmen be encouraged to assist in preparing some teaching aids. Material thus standardised should then be produced on a mass scale. It should include not only models and apparatus but pictures and picture books also.

It is found that the libraries in training institutions do not have a sufficient number of text-books, reference books and books on parental education, because they are not available in the market. The Education Department needs to explore ways and means for the production and supply of the required books, satisfactory both in quality and quantity.

2.10. Follow-up Programme.—A striking feature of pre-primary teacher training is the follow-up work done by some of the institutions by calling annual conferences of their alumni, keeping up correspondence with them,

and encouraging personal contacts. These are valuable features of training, which should be emulated at the primary and secondary levels. It is, however, obvious that such a follow-up is possible because of the small number of pre-primary teachers and also because the majority of the trainees are drawn from an area within a small radius of the training institutions.

- 2.11. Inspection and Supervision.—The inspection of pre-primary training institutions (and also of pre-primary schools) is at present conducted by inspecting officers who have at best a cursory acquaintance with pre-school education and pre-primary teacher training. Inspections conducted by them, therefore, are of very little help in the development of the pre-primary training institutions. There is no doubt that an efficient annual inspection designed to provide academic guidance to these institutions would bring into their work some more fresh outlook and keep their staffs alert. It is, therefore, keenly felt that suitable teacher training should be provided to some inspecting officers to enable them to specialize in giving academic guidance to pre-primary training institutions and pre-primary schools and also to encourage their experimental activities for the production of improvised as also standardized teaching material.
- 2.12. Need for studying Indian Children.—Educationists in the State are becoming increasingly aware of the need to study the development of Indian children right from birth to maturity. The current programmes of teacher-education are based on the psychological findings concerning the children in the western countries and consequently, they lose much of their effectiveness. The study of child psychology must be based on findings which would be valid in the framework of Indian culture. This project, however, would be of such dimensions that it could only be undertaken by a high level team of social scientists, in collaboration with all levels of teacher-training institutions.
- 2.13. Reorganization of the Training Programme.—It seems necessary for some time more to continue the present two levels of training for pre-primary teachers, one for the S. S. C. holders and the other for P. S. C. holders, working in urban and rural areas, respectively.

The need for a thorough revision of the existing training curriculum has been repeatedly pointed out by the Principals of pre-primary training institutions and educationists. The present course needs to be so revised as to lay adequate emphasis on child observation, provide for a greater variety of emotional and social experiences, facilitate the study of methods of working with parents, and increase the extent of aesthetic and creative work. It is also very necessary to include in the training course the methods for standards I and II of primary schools. Educationally speaking the lowest age of

entrance into the formal programmes of primary education should be 7 plus or eight. Before that, the child should receive pre-primary education through the utilization of his activity and experiences. The age of 6 plus, fixed in our country for entrance to primary schools, is mechanically accepted from the British model which has no basis in educational principles. When the first laws relating to child-labour were framed in England, the employers had refused to raise the minimum age of child-labour to 12 and insisted on 10 years; and since four years of primary education was considered essential for literacy, the age of compulsion came to be fixed at 6 plus. This accident has now become a tradition.

Another very important change that needs to be made is a separate course for teachers working in rural pre-primary schools, where the major need is to take educational facilities to the interior villages for creating educational consciousness and induce social change. The duration of the training course for such teachers should be only one term, to be followed by in-service training for three years. Specific training courses will have to be organized for teachers who intend to work in tribal areas.

At all events, it would be necessary to impress upon both educated and uneducated people that pre-school education is a very special area of education, and not a diluted version of primary education. The tendency of urban parents to force the learning of their wards to push them through the S. S. C. examination at the earliest age viz., 15, is most harmful for their children and needs to be discouraged. The minimum age of 6 plus for admission to a primary school, though on the low side, should be strictly adhered to in spite of the good progress of the child in the pre-primary school. Necessary public propaganda needs to be instituted by welfare agencies like Rotary Clubs, Women's Organizations, and Schools of Social Work to educate parents regarding the educational needs and progress of their children.

- 2.14. Establishment of the State Board of Teacher Education.—The report of the Committee for Integration and Development of Primary Education, Bombay State (1958) has already recommended the establishment of a State Board of Pre-Primary Education, the institution of a regular and detailed provision for grant-in-aid to private pre-primary schools, and provision of a specially trained inspectorate for the pre-primary stage. We substantially support these recommendations but in the interest of an integrated pattern of teacher-education, prefer the establishment of a State Board of Teacher Education for looking after all the levels of teacher-education.
- 2.15. The Role of the Local Bodies for Promotion of Pre-primary education.—We would once draw the attention of administration towards the valuable recommendations made by the Panandikar Committee and the Primary

Integration Committee regarding the role of the local bodies for the promotion of pre-primary education. It is high time that the State encouraged local bodies viz. Zilla Parishads and Municipalities, to start their own pre-primary schools, substantially aid the private schools with a regular grant-m-aid system, and insist on placing the pre-primary stage into the hands of well-trained teachers. The local bodies should make special efforts to start and aid such schools in the tribal areas and provide attractive conditions of service for their teachers. It is also equally important that private bodies and voluntary organizations like Rotary Clubs, Lion's Clubs, etc., should be encouraged to take up the work of starting pre-primary schools and thus help the promotion of pre-primary education which is the very foundation of education at all levels and in all directions.



CHAPTER THREE

THE TRAINING OF PRIMARY TEACHERS

evelopment

- 3.1. Inception.—In 1854, an impetus was given to teacher-training by the Wood's Despatch which suggested not only the establishment of training institutions but also proposed stipendiary deputations, apprenticeship of teachers in schools and graded salary scales after training. The progress of primary teacher-training, however, remained very slow. Till 1909, only 9 teacherstraining institutions existed in the Bombay Presidency. The men's colleges were located in Poona, Dhulia, Dharwar, Ahmedabad and Hyderabad (Sind). The women's institutions were located at the rate of one each in the four linguistic regions of the presidency, namely Karnatak, Maharashtra, Gujarat and Sind, in the same places where men's institutions were established. In Vidarbha, formerly part of C. P. and Berar, primary teachers' training was conducted in Government normal schools. These were located at Nagpur, Amaravati, Wardha and Akola. Teacher trainees in these institutions were paid stipends besides free tuition and free residential accommodation.
- 3.2. Initial Growth.—In 1921, the number of training institutions in the Bombay Presidency rose to 25. They provided a three year course of training which included all primary school subjects. In addition, a classical language, Algebra, Handwork or Agriculture were compulsory for the final examination. In 1925, the III year class was abolished as an economy measure and was revived in 1935. It was again finally abolished in 1939.
- 3.3. Impact of Basic Education.—The Vidyamandir scheme was introduced in 1938. The administrative pattern of Vidyamandirs remained almost the same as envisaged in the original scheme even after the introduction of Basic Education.

A Basic Training institute was started in April 1938 at Wardha, for training teacher-educators as well as primary school teachers. Vidyamandir teachers were trained for 6 months and teacher-educators for 3 months.

In 1939, the Government of Bombay introduced Basic Education in four compact areas in the State and decided to train teachers in the principles and practice of Basic Education. Three Basic Training Centres were established, one in each linguistic region of the State. The duration of the

training was reduced to 2 years. This arrangement continued till 1949, when the syllabus was revised and it combined all the academic content of the then existing training course with the basic craft and community work contained in the course of the Basic Training Centres. In women's training colleges, the syllabus in Science was replaced by Domestic Science and Needle work. The duration of training was 2 years, in spite of the very heavy additions of craft-work and community activities to the old academic content. The training colleges soon began to complain that the addition of craft and community living made the syllabus extremely heavy. The new items made particularly heavy demands on the time and engergy of the trainees who were required to fulfil the 'quota' prescribed for craft work. The demand on the time and energy of the teacher-educators was equally heavy. It was considered necessary to provide the teacher-educators with residential accommodation on the campus of the institution so that they might live the kind of "Ashram" type of life demanded by such heavy work. This expectation was found unrealistic and the difficulties faced by the training institutions in getting suitable s'aff were many. The trainees who were deputed after several years of service, advanced in age and considered the training course to be a great hardship. Many people thought that either the course should be extended to three years or the syllabus should be changed.

In Vidarbha, classes V, VI and VII were treated as middle school classes. Some were Vernacular Middle Schools where English was not compulsory, while others were I.E.M. Schools (Indian English Middle Schools) which taught English to all classes and had also VIII class attached to them.

Curriculum for both V. M. Schools and I. E. M. Schools was prepared by the Vidarbha Board of Secondary Education. Qualifications for teachers and scales of pay for teachers of classes V to VIII were approved by the Vidarbha Board. The .teachers of middle-school classes got two years' training at the Spence Training College, Jabalpur, till 1943. This training included, besides professional education subjects, contents of teaching subjects and the examination was conducted by the University since 1923 for Dip. T. later named Dip. Ed.

Since 1940 more training institutions were started. The Government Diploma Teacher Institute for men and another for women were started at Amaravati. More non-Government Institutions were started in Vidarbha at Chanda, Wardha, Yeotmal and Gondia (Hindi) for Dip. T.

3.4. The Committee on Non-Government Training Colleges (1955).— Several non-Government Training Colleges had been established between 1948 and 1954 under the programme of expansion of training facilities for

producing Basic-trained teachers. They gave voice to the difficulties involved in putting across the syllabus of 1949. It was not very clear to observers whether all the difficulties were inherent in the curriculum or some had arisen out of the conditions of training. The participation of non-Government agencies in the field of teacher-training was a newly developing trend. It was, therefore, considered necessary to study the working of private training colleges in order to find out their weaknesses, if any, and give them assistance to participate effectively in the programme of training Basic teachers. A Committee was, therefore, appointed by Government in 1955 to inspect non-Government training institutions, submit a detailed report on their condition, and make recommendations for setting up the standards of minimum requirements for their efficient conduct. Its terms of reference required recommendations on (a) staffing, (b) hostel accommodation, (c) practice lessons and their supervision, (d) provision of craftteaching, (e) grant-in-aid rules, (f) modification of the syllabus, if necessary. The Committee, however, found it essential to go beyond its terms of reference and consider the type of entrant required for the prescribed syllabus and the duration of training, since these factors are inextricably connected with the formation of any curriculum. The recommendations of the Committee led to the reformulation of the syllabus and other requirements of the training programme. Since then (1956), there have been only a few minor changes in these and the pattern evolved ten years ago substantially continues to function to-day. Some of the important factors which emerged from the Committee's recommendations are briefly stated in the following section.

- 3.5. Direction given in 1956.—The main complaint of the training colleges was the heaviness of the curriculum and the inability of the trainces and staff to implement it well in spite of the time and energy they unstintingly devoted to it. In examining the problem, the Committee considered the factors of (a) duration of training, (b) qualifications of the entrants to training, (c) fundamentals of the syllabus, (d) staffing of the training institutions, and indicated the direction for modifications.
 - (a) Duration.—The suggestion to increase the duration of the training course to three years was not considered practicable as an increased supply of Basic trained teachers was urgently needed. Two years was deemed as the most suitable duration. The Committee was also against providing a one year course for S. S. C. candidates because it felt that one year of hurried practice in craft was of very little help in mastering it and advised the duration of two years to give the trainees thorough skills in craft-work. It plainly stated that "Academic standing either as a matriculate or a graduate—does not materially affect the situation. It

is the volume of skills to be mastered and if these are to be properly acquired, a minimum of 2 years' practice would be necessary for all"

- (b) Entrance qualifications.—The Committee noted the complaint that the P. S. C. passed trainees were too immature to undergo the training course and agreed that S. S. C. candidates would be better suited to the training programme. Still, it pointed out the need for admitting P. S. C. candidates in order to meet the need for more teachers, created by the rapid expansion in primary education. However, the P. S. C. trained candidates were to be held suitable to teach Standards 1 to IV only and the S. S. C. trained candidates for Standards V to VII. The Committee pointed out that "when required they may also be given lower primary classes. But their main charge will be senior basic classes for which they will be better suited on account of their higher academic qualifications than P. S. C. trained teachers". It was thus that two levels of training for Standards 1 to IV and Standards V to VII came to be established.
- (c) Basis of the Syllabus.—The Committee pointed out that "It is now sufficiently clear that the present syllabus can be shorn of a good deal of its academic syllabus. The P. S. C. students will not need a heavy academic syllabus because they will be trained for lower classes. The S. S. C. students will not need a highly academic syllabus because to have it will be more or less a duplication, repeating what they did in their secondary schools for the S. S. C. Thus both these types will not need an intensive academic syllabus. We can omit from the syllabus History, Geography, Science, Mathematics, as it is given at present". The ratio between theory and practical work was, therefore, decided as 5: 4 and the academic subjects were grouped together for passing. A total of 300 marks were assigned to regional language, Social Studies, General Science and Hindi. A student was to get 40 per cent of the marks in the aggregate and was not required to pass separately in every individual subject. It was pointed out that this practice was in conformity with the arrangements for such other examinations as S. T. C., T. D. and B. T. conducted by the Department and the University, in which passing was expected in groups of subjects and not in individual heads separately. Under General Science, as pointed out by the Committee, the syllabus was to cover "a good deal of Physiology and Hygiene and application of Physics, Chemistry and Biology in our life". While indicating the need for instituting the lower and higher courses, the Committee had pointed out that the gap between the two courses may be bridged when lowertrained teachers passed the S. S. C. Examination and submitted a practical test in teaching the upper primary classes. The Committee also made a proposal that since P. S. C. is an admittedly low qualification

for entering the teaching profession, the admission qualification for the lower training course may be raised to the passing of Standard IX. It suggested that a public examination should be held by Government at this stage.

- (d) Staffing.—The Committee recommended the appointment of only trained graduates on the staff of the primary training institutions as far as possible. It insisted on at least one Basic trained graduate per class. As regards the trained under-graduates working on the staff of the training institutions, the Committee thought that they may be continued subject to the condition that they underwent a short course in Basic Education. Recognizing the heaviness of the workload in the primary training colleges as compared with the work in secondary schools, the Committee recommended a special allowance of Rs. 15 p.m. for the trained graduates working in training institutions. Travelling allowance for supervising the practical work and block-teaching done in schools at some distance from the training institutions was also recommended. After its merger in Bombay in 1956, normal schools in Vidarbha were named as Basic Training Colleges and their number increased. Non-Government Basic Training Colleges were also permitted to be established. No fees were charged in Government Basic Training Colleges. Besides, the trainees were given Rs. 25 per month as stipend. The non-Government Basic Training Colleges charged tuition fees and were given maintenance grant of 1/3rd of the approved expenditure.
- 3.6. Training of Women Primary Teachers:—The first training institution for women was established in Poona, in 1870. The eight trainees who were the first to enter the training institution in Maharashtra were scantily educated. Some of them did not even know the alphabet. Their only qualification was their willingness to enter the teaching profession. In the year 1878, the entrance qualification was raised to the passing of Standard III. In 1884, the period for the training of women teachers was fixed at 4 years as against 3 years for men. The course for women consisted of Arithmetic, Mother-tongue, History, Geography, Sewing and Needle-work. and Education. Four subjects which were obligatory for men teachers— Algebra, Geometry, Science and Sanskrit were not considered to be necessary in the syllabus for women. By 1901-1902 the total number of women in training institutions increased to 234. The entrance qualification was raised to Standard V in 1910, the syllabus was revised and it included all branches of Mathematics, Mother-tongue, History and Geography, Elementary Science, Drawing, Needle-work, Music, Kindergarten Methods and theory and practice of teaching. Each college held its own final examination. In 1923, the V. F. Examination for girls was instituted at the

- end of Standard VI and was prescribed as the entrance qualification for training. The duration of the training course was reduced to 3 years and three more subjects—Hygience, Nature-Study and Physical Training—were added to the course content. A common examination was held. At the end of their training women teachers had practically the same professional attainment as the men teachers had at the end of the second year of their training. In 1939, a progressive attempt was made to make the training course for women almost equivalent to that for men. The introduction of a common P. S. C. Examination for boys and girls (1948) made it possible to adopt a fairly common training syllabus for all training institutions from 1949 onwards. However, some differentiation still exists and instead of Science which figures in course for men, Domestic Science and Needle-work have been included in the training course for women. This differentiation continues to the present day.
- 3.7. Growth of Training Facilities (1957-1965): —From 1957 onwards, the number of training institutions increased with an unprecedented rapidity. Nearly fifty new institutions sprang up between 1957 and 1961, a span of barely five years, due to special assistance given by the Central Government for starting Basic Training Colleges as part of the programme for promoting Basic Education. From a total of 127 in 1960-61, the number has now risen to 141 (1965-66). Of those, 97 institutions are for men, 37 for women and 7 co-educational. Training facilities in the four different divisions are, however, still unequal. More institutions are required in Marathwada as it will need to train nearly 11,000 teachers during the IV Five-Year Plan period. While Nagpur Region needs the continuation of normal facilities for a few years more. Poona and Bombay Regions will soon reach a saturation point because in 1966-67, the number of untrained teachers under the Zilla Parishads, will be just enough to utilize the intake capacity of Government institutions only. The non-Government institutions may not get any more deputed teachers and may have to be ready to train only private candidates.
- 3.8. Special Training Colleges.—The most outstanding recent event in the field of primary teachers training in Maharashtra is the establishment of special training colleges for preparing teachers of English to teach Standards V—VII. Even some existing Government institutions were converted into special colleges in June 1965 and placed in charge of teacher educators trained in a special one year course organized by the Government in co-operation with the British Council. The establishment of special colleges to prepare subject-teachers for Standards V—VII is a step of farreaching importance in improving the standards of primary and secondary education. Special institutions for teachers of Mathematics and Science may have to follow the institutions for the teachers of English.

3.9. Training of Primary Teachers in Marathwada.—The total number of primary teachers in Marathwada Region is 19,952 at the end of the Third Five-Year Plan period. Of these, 6,250 are still to be trained. During the IV Five-Year Plan recruitment of 5,000 additional primary teachers will have to be made to meet the normal expansion as well as expansion due to the introduction of compulsion. The total number of untrained teachers will, therefore, be 11,250. Addition will have to be made to this number at the rate of 2 per cent. on account of retirement, resignation, etc.

At present there are 18 primary training colleges in Marathwada Region with a training capacity of 1,500 teachers per year. With the full utilization of this intake capacity, only 7,500 teachers will be trained during the Fourth Plan, thus leaving a back-log of nearly 4,000 untrained teachers at the beginning of the Fifth Five-Year Plan period. Training facilities in the Region can be increased in three ways: (i) Opening more training colleges; (ii) Increasing the intake capacity of each training institution to 200 seats, and (iii) Institution of correspondence courses, in addition to the increase in the capacity of the existing colleges. It is obvious that the first way would be the most expensive without the benefit of adding to the quality of training, as small colleges find it difficult to recruit the needed variety of staff and also to retain the staff once recruited. The second solution appears to be the best but it may require some rethinking on the location of the institutions in order to provide proper facilities of practice teaching. The third solution would be the least expensive and if it is adopted in addition to the second, no back-log of untrained teachers could be left in Marathwada at the end of the Fourth Five-Year Plan. The third solution would also be the most suitable for clearing the back-log of untrained teachers among women and also among men beyond the age of 30, who may have difficulties in attending institutional training.

B. Existing conditions and problems

3.10. General Conditions—(i) Unbalanced Growth of Training Facilities.—
The growth of facilities for primary teacher training in the State has not shown an even pace. Sudden spurts of activity in the field were witnessed in 1920-21, 1950-51 and 1957-61. A tremendous increase took place in the numbers of privately managed institutions during the second and the third spurts. While the increase in 1950-51 was occasioned by the need for more trained teachers to meet the rapid post-independence expansion of primary education, that in 1956-61 was a consequence of the generous funds made available to the States by the Government of India, for expanding and improving the facilities for primary teacher-training. Several

private societies already active in the field of general education came forward to set up new institutions and Government sanctioned their creation wherever the initiative was strong and the minimum conditions were satisfied. The major consideration was the provision of as many institutions as possible, within a given financial limit, to clear the back-log of untrained teachers expeditiously. In such circumstances, it became essential to depute the untrained teachers from areas which had not mustered enough private initiative and resources to establish training institutions, to any part of the State where training facilities were available. This measure did contribute substantially to a rapid increase in the number of trained teachers. The percentage of trained teachers rose from 53.3 in 1955-56 to 69.5 in 1962-63. This was a creditable achievement because the 53.3 per cent trained teachers in 1955-56 came from a total of 48,406 teachers while the 69.5 per cent of 1962-63 from a total of 87,172. Thus not only was a back-log of about 21,000 teachers from the left-overs of 1955-56 cleared but an additional force of nearly 40,000 trained teachers was raised. The increase of nearly 40 thousand and training of 61 thousand teachers in a period of seven years has to be rated as an extraordinary achievement especially when it is remembered that prior to 1956, it had taken exactly one hundred years—from the year 1855 in which the Education Department was established to reach a 40 thousand teacher provision. There was much justification for undertaking this hectic activity to get the primary teachers recruited and trained as quickly as possible. The need of the moment was compelling enough to obstruct the thought of a planned development of training facilities.

The areawise provision of training facilities developed further imbalances when the reorganization of the States reshuffled the area composition of Maharashtra. It has not yet become possible to make a complete readjustment in the conditions and facilities for training in the various parts of the State. While there are 40 institutions in Bombay Region, 44 in Poona Region and 39 in Nagpur Region, only 18 are located in the Aurangabad The distribution of institutions comes to 6.5 per district in Western Maharashtra, 5 in Vidarbha and 3.5 in Marathwada. The percentage of trained primary teachers in the State as a whole is 73.8. But the Bombay and Poona Region have reached nearly 90 per cent so that very few deputations of Zilla Parishad teachers can take place from 1966-67 onwards. In the other two regions where the absence of compulsory primary education had checked the growth in the number of teachers and training facilities (particularly in Marathwada) the percentage of trained teachers is barely 50. As private effort in teacher-education has not been of much significance in Marathwada, a greater Government effort has been necessary. Of the 18 institutions in that region, 15 are Government and 3 non-Government. In Nagpur Region there are 19 Government and 20 private institutions,

indicating an equal effort by both agencies. In Western Maharashtra, of the 40 colleges in Bombay Region, 11 are Government and 29 non-Government. Out of a total of 44 in Poona Region, 13 are Government and 31 non-Government. This means that nearly 75 per cent. training institutions in Western Maharashtra are conducted by private managements. This extensive private effort in teacher-training has helped to quickly raise the precentage of trained teachers in Western Maharashtra. However, the numbers of trained teachers may very soon reach a saturation point in this area, and a curtailment of the existing training facilities may have to be considered. The imbalances which exist in training facilities from district to district may also have to be carefully studied and removed. The practice of sending the trainees to far-off discricts not only causes them much personal hardship but also adversely affects the usefulness of their practical training as they are not able to study the problems of the schools and communities of the districts where they would work after training. The table given below will clarify the relative position of each region and district in the State:—

Serial No.		District			Jovernment Insti- tutions.	Non- Government Insti- tutions	Total
			Bombay R	egion	थत <u>े</u>		→
1	Ratnagiri	••	••	••	2	6	8
2	Kolaba		••	•••	2	1	3
3	Thana			••	2	4	6
4	Nasik	••	••	••	2	5	7
5	Dhulia	••	• •		2	2	4
6	Jalgaon	••	••		1	3	4
7	Greater Bombay	••	••		••••	8	8
			Total		11	29	40

Serial No.		District			Govern- ment Institutions	Non- Govern- ment Institutions	Total
	····		Poona Re,	gion			
8	Poona	• •		• •	5	4	9
9	Ah:nednagar	• •			1	4	5
10	Sholapur	••	••	• •	2	5	7
11	Satara	••	••	••	3	7	10
12	Sangli	••	••	• •	1	6	7
13	Kolhapur	••	••		1	5	6
			Total	23	13	31	44
			Aurangabad	Reg	ion		
14	Aurangabad	••	- 6		4		4
15	Parbhani		. Valley		2		2
16	Nanded		V/V	W	3	••••	3
17	Bhir	• •	2	23	3	1	4
18	Osmanabad	••			3	2	5
			Total		15	3	18
			Nagpur F	– Regio	श्रेत ग		
19	Nagpur	••	••		2	8	10
20	Chanda				2	1	3
21	Bhandara	• • •			2	3	5
22	Akola	••		••	4		4
23	Yeotmal	••	••	••	2	i	3
24	Amravati	••	••		4	3	7
25	W ardha	••			2	3	5
26	Buldhana				1	1	2
			Total		19	20	39
			Grand Total		58	83	141

3.11. Location of Training Institutions.—The need for a rapid growth training facilities has led establishment of to the training institutions of on the basis mainly two criteria (a) availability of buildings and (b) the rural character of the location, required to meet the needs of the Basic syllabus which emphasized community contact. The second criterion appears to have received more emphasis than the first. Some of the institutions have been established in very small places which do not have large enough primary school to provide enough facilities for realistic practice-teaching. Instances have come to light where the number of trainees in the training institutions and the number of pupils in the village school is almost the same, necessitating the arrangement of practice-lessons on fragmented classes of 3 to 10 pupils. There are 9 institutions which are located in small villages where enough schools and pupils needed for a satisfactory practice-teaching time-table do not exist. If the number of trainees is reduced in view of the inadequate facilities for practice-teaching, the institutions fall into the danger of becoming educationally ineffective due to small staffs lacking in specialization and also become uneconomical as a result of improportionate overhead expenditure. It is true that most of the primary teachers must do their practical work in rural surroundings in order to be able to tackle the proolems of rural schools. But this does not mean that the training institutions should be located in inconvenient rural places. Small towns with a population of about 15,000 to 25,000 and having more characteristics of rural than urban life, are abundantly available for locating primary training institutions. However, meeting the needs of practical training is not the only factor on which the efficiency of training depends. Availability of a staff of well-qualified teacher-educators with a variety of specialization, is the most essential condition for effective training. It has come out in several conferences and discussions with the managements of teacher training institutions that a shortage of well-qualified teacher-educators is mainly experienced by institutions located in places where the following facilities are not readily available: good medical aid, drinking water facilities, closeness of a railway station or state transport bus-station, a secondary school for the children of the staff, at least a small public library which provides books for general reading and such recreational facilities as a children's park and

cinema theatre, commonly required by any average citizen. The adjustment of the teacher-educator to the environment of the training institution has, therefore, to be given as much or perhaps even more importance than practice teaching facilities, if the services of suitably qualified teacher-educators are to be secured by a training institution. The question of providing suitable residential accommodation to the teacher-educators may also be less trouble-some if the institutions are located in small towns instead of villages.

- (i) Criteria for Location.—Since it is obviously necessary to replan the location of some of the training institutions in the State, a set of criteria may be evolved to include (a) educational considerations such as availability of facilities for practical work, close proximity to villages for the purposes of extension, availability of electricity for the use of the radio and projection aids for training purposes, etc. (b) organizational considerations such as availability and stability of the full-time and part-time staff required for implementing all components of the curriculum, adequate number of trainees for full utilization of the capital and recurring expenditure on training facilities, facility of communication etc., and (c) administrative considerations such as the short-term and long-term requirements for trained teachers in the different regions and districts, personnel, equipment and buildings needed for running an efficient institution, the probable demand on Government resources for developing new training facilities, etc.
- (ii) Size of Training Institutions.—The study Group on Elementary Teacher Education (1963) recommended 200 as the size which, with a class-size of 50, would secure efficiency as well as economy in a primary training institution. There have been further suggestions to increase the size to 300 or more, wherever possible. For facilities of practice-teaching for 200 to 300 trainess, it is necessary to provide 20 to 30 divisions of Standards I to VII, if practice teaching is to be realistic (and not carried out on fragmented classes of 5 pupils), and if the children's studies are not to be hamoered by a successive barrage of practice-lessons. The number of divisions indicated can be found only in places which have an "educational catchment area" with a population of about 15,000 to 20,000 at the minimum. But several of the existing institutions are located in much smaller "catchment areas" as revealed in a recent study:—

Population.		Percentage of training institutions.
below 5,000	•••	16.7
5,00110,000		15.8
10,001—15,000	•••	6.7
15,001—20,000	• • •	10.8
above 20,000	•••	50.0

All over the country, 200 trainees are the accepted optimum intake capacity of a training institution. Only 9 institutions in Maharashtra have reached this standard. Two institutions are between 300 and 400. Only 11 institutions, therefore, can be considered as economically viable and educationally The size of an institution needs to be considered as an important factor in making the training programme more effective, achieving better organization and management of the institutions, and equalizing the training facilities in all the regions and districts of the State. At present 85 institutions are below 200 and 26 out of these are below 100, going down to less than 30. Most probably, not only relocation but consideration of institutions would be essential to prevent inefficiency and wasteful expenditure. About 70 to 75 institutions with a strength of 200 to 300 trainees, located at appropriate places, will be enough to provide adequate facilities for the preservice as well as in-service teacher-training programmes in the State. In terms of educational effectiveness, this arrangement would give much invested in primary teacher training than better returns for the funds appears possible in the present conditions. If such planning is to be undertaken, it would be necessary to study the working of each and every training institution and devise measures which, while checking the proliferation of uneconomical and educationally ineffective units, would build up institutions of the desired standard for all types of training programmes for primary teachers.

3.12. Buildings & Equipment—(i) Buildings.—The conditions regarding buildings and equipment in primary training institutions are in need of much improvement. Class-rooms of 480 to 500 sq. ft. expected to be provided for the class-sizes of 40 to 50, were found in only about 38 per cent. of the institutions. The minimum expected area for the office of the institution is 368 sq. ft. Only 33 per cent, of the institutions could provide it. The standard "type design" for the buildings of primary training institutions does not include any provision for a science laboratory. However, though a complete laboratory is not required to be set up, arrangements have to be made for the demonstration of experiments and handling of some apparatus. Taking into consideration the storage space for equipment, class-seating and demonstration table, an area of at least 600 sq. ft. will have to be provided for teaching Science. Taking this area as norm (in the absence of any other prescribed norm) it is found that less than 20 per cent, institutions have this accommodation. Laboratories are found only in the very old Government Training Colleges which used to teach the three year training course in which Science was an important subject. These laboratories have now fallen into disuse. Replacement of outmoded and unserviceable apparatus is not made since the existing training course does not require a laboratory. A reading room of 800 sq. ft. has been prescribed. Only 2 institutions have been able to satisfy this norm. Nearly 24 per cent. institutions had some facility for reading room and 72 per cent had no

separate reading rooms at all. As regards hostels, 50 per cent institutions have the hostel buildings quite close to the tuitional buildings. 34 per cent observed the norm of having it within a distance of two furlongs from the tuitional building. The remaining exceeded this distance and 4 institutions have their hostels at a distance of one mile and above. Though it is obligatory for an institution to provide the minimum floor area of 64 sq. ft. per resident trainee, only 33 per cent. institutions are close to the norm with a floor-area between 50 to 70 sq. ft. per trainee. 36 per cent institutions provide 30 to 50 sq. ft. and the remaining are below this level. This means that 67 per cent of the institutions cannot provide proper hostel accommodation. In most places, sanitary arrangements for both tuitional and hostel buildings, are either unsatisfactory or non-existent. There are no "type-plans" for hostels and even some newly constructed hostel-buildings having spacious dining-halls and good residential rooms, have failed to provide bath-rooms and lavatories. The facilities were absent in 3 hostels meant for women trainees. Nearly 70 per cent, hostels are accommodated in rented buildings which fail to satisfy not only the departmentally "prescribed norms" of floor-area but the minimum requirement of light, ventilation and hygiene which commonsense has prescribed for human dwellings. 6 per cent have made hostel arrangements with the help of other managements and only 24 per cent have their own buildings.

- (ii) Equipment and Teaching Aids.—In order to carry out the training course satisfactorily, a training institution needs to have same Science apparatus, a library of educational books and school texts with a book-stock of about 500 volumes, and some teaching aids such as maps, charts, models, The furniture necessary for class-rooms, office-rooms, hostels, students' common room is expected to be found in every training institution. It is not expected that the furniture should be costly, modern, westernized and well-Indian style desks for floor-seating arrangements, rough shelves for books, stands for maps and charts, are normally accepted as suitable equipment. Minimum amount, durability and functional utility is all that is needed in the equipment. However, the majority of the training institutions, have pointed out the inadequacy of equipment of various kinds which exists at present. Shortage of A. V. aids has been reported by 77.5 per cent. of the institutions, lack of equipment for group life and co-curricular activities by 74.2 per cent., and the need for minimum scientific apparatus is pointed out by 66.7 per cent. The problem of equipment requires a thorough study to decide the needs of every institution, the types of equipment necessary for a good training programme, the arrangements of production and distribution of inexpensive but functional equipment, the storage space and other areas which can be included in type-plans of tuitional and hostel-buildings, and such other factors.
- 3.13. Trainees—(i) Age and Qualifications.—The lower and upper agelimits for admission to primary training institutions are 16 and 22 years.

Candidates with the following type of qualifications enter the training programme: (a) Teachers deputed by the Zilla Parishads, Municipal Corporations and Municipal Boards, (b) Teachers deputed by private primary Schools, (c) Teachers seeking admission as private candidates. In Government institutions, 90 per cent. of the seats are reserved for teachers deputed by Zilla Parishads and Municipalities. The remaining 10 per cent, seats can be utilized for deputed teachers from private schools. In non-Government institutions, the percentage of seats reserved for Zilla Parishad and Municipal teachers is fixed by Government from time to time and the remaining seats are to be filled by teachers deputed by private schools and/or fresh candidates seeking training on their own. These are normally called "private candidates".

Candidates seeking admission to a primary training institution have to possess one of the following qualifications: (a) A primary School Certificate, with at least 45 per cent marks (40 per cent for women and backward class candidates in the aggregate, only for deputed teachers; (b) The Secondary School Certificate for private candidates. Candidates who are Primary School Certificate holders are admitted to the two-year Junior P. T. C. Course and S. S. C. candidates are admitted to the one year Junior P. T. C. Course. The minimum attendance required is 130 days in the year. S. S. C. holders who put in two years of service after obtaining the Junior P. T. C. are allowed to study externally and appear for the Senior P. T. C. Examination.

The Junior Primary Teacher Course syllabus for both types of candidates is exactly the same. An attempt has been made to render it suitable for both levels, which are separated by a four-year gap in general education. Consequently, the Primary School Certificate holders find the syllabus difficult, particularly in the mother-tongue, where the prescribed Marathi text-book is of the level of Standard X. On the other hand, the S. S. C. holders find it extremely easy. The syllabus in Science, which has been adjusted to the level of the Primary School Certificate is too simple for the S. S. C. level. As a result, trainees at both levels are unhappy with the course-content of subject-knowledge. The Primary School Certificate candidates also complain that Psychology and Principles of Education are difficult subjects.

From the information available for 1964-65, it is found that 74 per cent trainees held the Primary School Certificate, 24.8 per cent had the S. S. C. and 2 per cent. had passed the Pre-degree or P. U. C. Examinations. Most of the P. S. C. trainees are from among teachers recruited several years ago. Their academic levels are low. Only about 15 per cent. of them had passed the Primary School Certificate

Examination with 60 per cent. marks or more, 42 per cent. had obtained between 50 per cent and 60 per cent marks, and nearly 43 per cent stood in the range of 40 per cent to 50 per cent marks. S. S. C. passed candidates have no restriction of percentage of marks for admission to training. It was, however, found that 3.4 per cent had obtained 60 per cent or more marks, 33.3 had obtained marks within a range of 50 per cent to 60 per cent and 63.3 per cent stood within a range of 40 per cent to 50 per cent This picture compares quite well with that of the Primary School Certificate passed candidates. As regards the rural-urban differences, 86 per cent. of the trainees were drawn from rural areas and 14 per cent. from urban areas. Nearly 63 per cent trainees were deputed to institutions in their home districts but 33 per cent. were sent outside. Almost 2 per cent, of the trainees were above the age of 35, 36 per cent. between 25 and 35, 47 per cent. between 20 to 25 and 15 per cent, below the age of 20. The sanctioned intake capacity for each division in training institution is 50 trainees. The average number of trainees per division has, however, worked out to 42 which means that many training colleges had classes much below the sanctioned strength of 50.

- (ii) Economic Conditions.—Usually, 60 per cent. of the trainees are married men and women with families to maintain. During the training period, the economic conditions of such trainees are rendered very difficult. At present, financial aid is given to them in the following manner:—
 - (a) Teachers who have completed five years of continuous service on 15th June, 1953 are deputed for training on duty Pay.
 - (b) Stipends of the value of Rs. 35 per month are awarded to (i) teachers not coming under (a) above but appointed before 2nd August 1953; and having continuous service thereafter, (ii) teachers who have passed S. S. C. or Lokashala examination and (iii) teachers who have passed the Primary School Certificate examination with 60 per cent. marks (55 per sent. in thecase of backward classes);
 - (c) teachers appointed on 3rd August 1953 or thereafter and not falling under category (b) (ii) and (iii) above are deputed as non-stipendary students and have to get themselves trained at their own cost. But such teachers are eligible to get a Loan Scholarship of Rs. 25 per month, during the training period.

To-day nearly all teachers fall under the category (b) and (c) above. Messing charges constitute the heaviest item of expenditure for a trainee. They are about Rs. 20 per month in 11.7 per cent. institutions. Rs. 20 to Rs. 25 in 55 per cent. Rs. 25 to Rs. 30 in 30 per cent. and above Rs. 30 in 3.3 per cent. institutions. The expenditure on the salaries of cooks, kitchen servants, watchmen (badly needed for dilapidated hostels), both in

Government and non-Government training institutions. The monthly expenditure figures given above include not only food-charges but payment to servants as well. The actual food-charges come to Rs. 18 to Rs. 20 per month. The food available in this amount is often insufficient and has very little nutritional value. One institution which carried out a careful health examination of the trainees found that most of them were undernourished and anemic. Most of the quarrels between the trainees and a large number of administrative complaints, malpractices, and misappropriations in primary training institutions originated in the messing arrangements.

- (iii) Attendance Problems and Studies.—Since deputation outside the home district cause hardships of adjustment to food and climate, deputations are now made, as far as possible, to institutions within the home district of the trainee. But this gives rise to another problem, namely, the frequent leave (both authorised and unauthorised) taken by the trainees to visit their homes. Frainees who come from families of agriculturists are usually away from the training institutions during the busiest spells of the agricultural seasons. Celebration of village festivals, and religious performances and important events in the family, are other causes for their frequent desertion of the training course. There is a widespread complaint from the Principals of primary training colleges that the leave facilities given to the trainees are too liberal and need to be curtailed. Though 130 days of attendance are prescribed, the number dwindles down to around 100 days. When examinations draw near, hectic attempts are made to rush through the 'quota' of craft work. The problem is occasionally solved by using the simple contrivance of surreptitiously commissioning a local artisan to do it all for a small The visual-aids are sometimes taken care of by the drawing-teacher. Theory portions are mugged up from 'Guides'.
- (iv) Hostel Arrangements.—Though residence in the hostel is compulsory, satisfactory hostel facilities are provided by very few institutions. It is not unusual to find 6 to 10 trainees crowded in a hostel room. Furniture such as cots, tables and other equipment required for comfort and tidiness is rarely to be found. In Government institutions, such furniture used to be provided 30-40 years ago and some of it is still available though in a state of disrepair. Repairs and replacements are no longer possible as the costs of furniture are most prohibitive. The sanitary arrangements in most hostels are unsatisfactory. Even in some of the specially constructed hostel-buildings drinking water facilities, bathrooms and latrines have not been provided. Type-plans for the construction of hostels for training institutions have not yet been volved. The absence of such facilities in some of the women's institutions cause the trainees great embarrassment and hardship. With some exceptions, the hostels present a depressing and untidy picture with their ill-ventilated

and ill-lighted rooms which are cluttered up with rows of trunks, bedrolls, posts and pans, and clothes hanging and drying on improvised clothes-lines along the walls and across the room. The 'personality' of the trainee and his insights into the problems of improving village-homes cannot but remain stunted in such surroundings. These conditions do not show much difference in Government or private institutions. It is no wonder if the trainees are inclined to frequently remain away from such conditions of living. The obligation of 100 per cent, residence for men and 75 per cent, for women was laid down in the interest of promoting 'community-life'. The intention behind the provision was very good and the expectation of a happy and creative group life among the trainees was also quite laudable, but the actual conditions of the hostels have made a complete travesty of these excellent intentions. The more closely one studies the academic levels, living conditions, and attitudes of the trainees towards the training programme, the greater is the realization that it would indeed be miraculous if the existing arrangements produced even a few devoted and effective teachers for our primary schools.

- (v) Women Trainees.—The position is worse in the case of women trainees who are mostly married women with young children and family worries. They accept the training programme as an unavoidable hardship that must be faced for occupational survival. Some teachers arrange for the care of their children by other women relatives, while some bring a relative to the place where the training institution is located and house her together with the children in a rented room. Though hostel-residence is not compulsory for 25 per cent, women trainees, the percentage of those who need to stay outside is much greater. The compulsion to stay in the hostel is probably one of the factors that prevent women (particularly rural women) from entering the teaching profession or continuing in it after selection for training. During the training period, they normally exhaust all their available leave to visit their homes. Not infrequently, their 'in-laws' and other relations visit them in the hostel to discuss all kinds of family problems. The difficulties under which women have to go through the training programme can easily be imagined by anyone who knows the home-conditions, family obligations and social status of our rural women.
- 3.14. Staff—(i) Inavailability of Staff.—Inavailability of staff is a general complaint made particularly by non-Government institutions. In 1964-65, the position in the latter half of the year showed that 60 posts of full-time teacher-educators and 57 posts of part-time special teachers were vacant. There was an acute shortage of teacher-educators for Agriculture, Science, Mathematics and Hindi. Special teachers for Music, Drawing and Physical Education were also in short supply. The fluidity of part-time teachers has

been considerable because they are always on the look-out for full-time permanent jobs in schools and quit the training institution as soon as they find one. The situation is much better in sufficiently large towns where they can have part-time jobs in one or two secondary schools in addition to their work in the training institution. This is particularly true of teacher of Drawing. It is extremely difficult for training colleges situated in small places to secure the services of qualified Drawing Teachers. This is particularly a severe handicap because the guidance and assistance of Drawing teachers is essential in the preparation of visual aids, and instructional projects.

(ii) Qualifications of Teacher-Educators.—The following table will give a broad idea of the academic and professional levels of the teacher-educators in Maharashtra:—

	Class		W. 75		11	Pass	Total
Aeademic-Qualif	ications—	6			3	- + · · · · · · · · · · · · · · · · · ·	
B.A. (includin B. Com.).	g II-Class B.	Com. Pass (Class	6	189	553	748 (83·2)
B.Sc			H	TAF	51	99	151
		Total	V.	7 (0·8)	240 (26·7)	652 (72·5)	899
М.А		?	વચમ	3	50	88 (includes 1 M.Com.)	141
M.Sc.	••	• •	••	••	• •	4	4
		Total		3 (2·1)	50 (34·5)	92 (63·4)	145
Professional-Qua	li fic ations—						
B.T./B. Ed.	v -0	• •	••	62 (7·2)	528 (61·4)	270 (31·4)	860
M.Ed.				••	19	30	49

	4	Years			Number of Teachers	Percentage
Experience —						
Nil	••	••	••		97	••••
I Year				• •	62	••••
2 to 4 Years		• •			263	29.3
5 to 7 Years	••		• •		205)	27.0
8 to 10 Years			• •		130	37.2
Above 10 Year	s	••		225	142	15.8
					899	
Sex-composition—	-		C. C.			
Number of Me	n	••	- VIII		676)	
Number of Women		••	LU	Les	223 Prop	portion—3:1

It would be seen that the quality of teacher-educators, as regards academic standards, leaves much to be desired. Only 145, i.e. 16 per cent. hold Master's degrees. Of these, 140 are M.A., 4 M.Sc., and 1 M.Com. Among the M.A. degree holders, 3 have a first class, 50 second class and 87 passclass. All the 4 M.Sc., holders have a pass-class. Among the graduates. 0.8 per cent. have a first class degree, 26.7 per cent. second class and 72.5 per cent. pass-class. As regards professional qualification only 49 hold the M.Ed. degree. Of these, 19 have passed it in the second class and 30 in the pass-class. The percentage of M.Ed. degree holders comes to 5.5 per cent. only. Though the results of the first professional degree are normally liberal and show a large proportion of first and second classes, the percentage of first class professional degree holders is only 7.2 per cent, in the staffs of the training institutions. The percentage of pass-classes is 31.4 which does not speak well of the standards of recruitment for staffs who are expected to place before the trainees the high aims of professional efficiency. The large proportion of inexperienced teacher-educators probably indicates fluidity among senior staff-members. The proportion of men and women

teachers-educators is 3: I which shows a good trend. In a separate study of Government training institutions, the following position was revealed.

Degree		No. holding degree		Ist Class	2nd Class	3rd Class
В. А.	••		285	2	44	239
B. Sc.			85		23	62
M.A./M.Ed.	• •		84	1	22	61
	Total		454	3	89	362

Among the 285 teacher-educators holding B. A. degree only 0.4 per cent. have obtained the first class. Nearly 84.2 per cent. have pass-class and 15.4 per cent. second class degrees. Among the B.Sc., teachers nearly 10 per cent. are in the pass and 30 per cent. in the second class. It has not been possible to obtain separate information regarding the M.A. and M.Ed. holders. Their total percentage comes to 18.8 per cent. Taking a broad overview of the qualifications, it can be said that in all 81 per cent. of the teacher -educators in Government training institutions are pass-class and 18 per cent. second class graduates. Only 3 first class graduates could be recruited. The figures speak for themselves and emphasize the fact that one of the causes of the law performance of our trained primary teachers has its origin in the inadequate quality and quantity of teacher-educators.

(iii) The Staffing Pattern and Workload of Teacher-Educators.—The workload of a teacher-educator should normally depend upon the nature and extent of the theoretical and practical part of the training course, methods of instruction, system of examination, size of the training institution and the various roles which he is expected to play in serving the profession and the community. The staffing-pattern must ensure a reasonable workload for each full-time and part-time member of the staff, for satisfactorily attending to all the required duties. However, our existing staffing-pattern is arbitrarily decided as 2 teachers per class. The syllabus has not been yet viewed in terms of hours per year for each part of its content, not in terms of the number of subject specialists required for its implementation. The weekly workload of a full-time teacher-educator is decided as 36 periods or 22 hours. But it invariably amounts to more than 36 periods per week as many of the teacher-educators' activities have to be carried out before and after the

scheduled hours of work in addition to the normal time-table. The methods of teaching are an approximation of the instructional methods in schools and there is very little scope for the trainees to follow methods of self-study which would reduce the teacher-educators' workload. The Principal also is overloaded with administrative tasks, particularly with his duties as a hostel superintendent. He can hardly exercise any educational leadership in the community or find time to guide and supervise the work of his assistants. He can be given much relief if an independent post of hostel superintendent is created and a senior and junior clerk are appointed for carrying out the routine office work. Clerical help would leave the teacher-educators free from office work which the Principal often assigns to them. In a college having at least 4 divisions of 50 trainees each, it would be possible to appoint clerks as also a full-time librarian, effecting a further reduction of the workload of teacher-educators and give them more time for academic work. If the staffing pattern of a training institution is based not on a traditionally conceived student-teacher-ratio or teacher per division but on the number of subject-specialists necessary for the syllabus and the hours which a teacher-educator must devote to different types of activities in a modern training programme, it would be possible to achieve a more equitable distribution of academic and administrative work, greater training efficiency and reasonable workload.

3.15. Curriculum and Duration of Training—(i) The syllabus.—The syllabus of the Primary Teachers Certificate Examination expects the training institute to work for 200 days in a year exclusive of the days devoted to examinations. The time-table consists of 54 periods a week, each period varying from 35 to 40 minutes, bringing the total working hours per week to about 34 for the 5½ working days. Practice-teaching, community-life activities, projects, village-uplift are to be done in addition to these 34 hours. The distribution of periods given below will throw light on the heaviness of the programme:—

Group 1—Crafts

(i) Practical work i	n crafts	•••	•••	15) ,,
(ii) Theory		•••		15 3	18
C	Group II—Edi	ıcation			
(i) Theory	•••	•••	•••	4 2) _
(ii) Tutorials	***	•••	•••	2	\ °

Group III—Academic Subjects

(i) Regional Language (ii) Hindi (iii) General Mathematics (iv) General Science				8 4 4 4	} 24
(v) One of the following si (2) Classical Language Group IVSubjects	ge, (3) E	nglish,	•••	4 4	j
(i) Drawing and Music	•••	•••	•••	4	
(ii) Physical Education	•••	•••	•••	2	, 0

Total: 54

- (ii) Crafts in Training Institute.—There can be no two opinions on the desirability of teaching craft-work not only in primary but secondary schools also. The controversial point is whether every teacher has to be a skilled teacher of craft. The difficulties in implementing the rather ambitious craft-syllabus for primary teachers necessitates much rethinking on this problem. The teaching of crafts presents difficulties in both its aspects, namely (a) Theory of Crafts and (b) Practice of Crafts:
 - (a) Theory of Crafts.—The teacher under training at present learns the theory of any one of the 3 main crafts and any two of the three subsidiary crafts. This provision is unduly burdensome. Whether craft-work should be backed up by so much theory is also a moot question.
 - (b) Practice of Crafts.—It is expected that a trainee should choose two crafts, one main and two auxiliary. However, no choice is possible as no training institution provides instruction in more then one main craft out of the following three:
 - (1) Spinning & Weaving.
 - (2) Agriculture,
 - (3) Carpentry.

This absence of choice creates the following problems:

The training in craft proves to be a waste if after the completion of this training, the teacher works in a school where there is no craft at all or where a different craft has been introduced. Such a situation is common because only 10 per cent. primary schools in the State are Basic.

If the trainee has to learn a craft in which he is not interested, he transmits to the pupils his own dislike for craft-work. This situation also is quite common because spinning and weaving which is the most widely provided craft in training colleges is extremely unpopular among the trainees. A variety in the provision of craft work would certainly mend this situation. Moreover, it is more important to select the crafts on the basis of their educational potential and appeal to the young pupils of primary schools, than on any economic basis. Productivity of craft-work should not be judged by immediate financial gains but by the extent of creativity and inventiveness it injects into the mind of the pupil and ensures his social and occupational productivity in adult-hood.

(iii) The Study of "Education".—The course of studies in education is divided into three parts: (i) written examination, (ii) practical examination, and (iii) assessment of the year's work in teaching and other related activities. The distribution of subjects and marks under these three items is as follows:

	(i) Written Exa	nination		
Paper 1	No. Subject		Time	Marks
1.	Principles of Teaching	2	hours	50
2.	School Management and Organiz tion.	ra- 2	hours	50
3.	Methods of Teaching	2	hours	50
	सन्यमेव	जयते	Total:	150
	(ii) Practical Exan	nination		
C	one Lesson before Examiners	•••		50
(i	ii) Year's Work	•••	• • •	100
		Gra	nd Total:	300

The syllabus in Education appears to need revision. As it stands, it is not sufficiently comprehensive to give the teachers insights and skills which are required to confidently handle the upper-primary classes. In order to modernize the syllabus and to make it more functional, it may be necessary to include in it some essential elements from the following subjects:

Child Development in its relation to the culture of the people; Social Psychology as related to community development and the relationship of the school with the community; Modern techniques of teaching and learning both 'on' and 'off' campus.

Much of the criticism of the existing syllabus arises from its lack of connection with the syllabus of the primary schools. Whereas the syllabus for training requires concentration on 'craft' and underplays the importance of "subjects", the syllabus of the primary schools still emphasizes subjects and not 'craft'. It is necessary to remedy this defect.

- (iv) Study of 'Content' Subjects.—Increased knowledge of the content of academic subjects is needed much more by the P. S. C. than the S. S. C. candidates. Yet, it is found that the syllabus in the mother-tongue is the same for both. While it is beyond the capacity of the former, it is too easy for the latter. It is, therefore, necessary to modify the syllabus in subject-knowledge to suit the two levels of trainees. Science that is done in the existing training course is some Physiology and Hygiene. It is necessary to provide a good syllabus in General Science in order to equip the teacher adequately to teach it in Standards V to VII. The syllabuses in Mathematics, Social Studies and Hindi appear to be satisfactory. However, the present practice of allowing the candidates to pass in a 'group' of academic subjects temp's them to neglect one or more subjects in the group and secure 'passing marks' in the group as a whole. Their preparation for teaching the various subjects in the primary school curriculum is, therefore, most unsatisfactory.
- 3.16. Problems of Practical Work.—The year's work in practice-teaching consists of the following to be done in each year of the course:—
 - (a) Twenty correlated lessons to be given under supervision, at least 4 with an emphasis on activity and the remaining only based on activities.
 - (b) Observation of at least 10 demonstration lessons, at least two with an emphasis on activities and the remaining, based on activities.
 - (c) Observation of at least 40 lessons in the classes in which the teacher is practising.
 - (d) One week's continuous teaching in a Basic School.
 - (e) Three multiple-class lessons.
 - (f) Preparation of at least two simple teaching aids.
 - (g) 'Community-life' activities.
- (i) Practice Lessons.—The lack of connection between the training syllabus and the syllabus of the primary schools, creates difficulties in organizing the practice-teaching programme. The practising school

attached to the training institution is no doubt a Basic School, but ordinary schools also have to be utilised as one school is inadequate for arranging the large number of lessons: 40 for observation, 23 practice-lessons, 3 multiples lessons and 30 'correlated' lessons. The compulsion to put correlation into a rigidly prescribed number of lessons and in 'topics' fall to the lot of a trainee, makes correlation so far-fetched that it has very little utility in the normal teaching-learning process. The idea of correlating a prescribed number of teaching units with craft, physical and cultural environment needs to be given up. The first useful step for improving the situation would be to arrange a variety of demonstration or lessons in which natural correlation with all aspects of life and learning becomes amply evident. Even these lessons could be reduced to the minimum, if the trainees could observe some goods day-to-day teaching by competent teachers from a large number of practising schools. But nearly 50 per cent. of the training colleges are located in such small places as to leave the trainees no option but to watch the artificial demonstration by the staff. In such places, the practising schools are often so small that it becomes necessary to split up every class into small groups of 5 or 6 pupils each, and the trainee goes through the motions of giving a practice-lesson on this fragment of a class instead of a normal-sized class of 40 to 45 pupils. In the case of one training college, it was found that the number of its trainees was almost the same as the number of pupils in the practising school, bringing the teacher-pupil ratio to the Greek ideal of 1: 1, but ruining the education of hundreds of children whom this ill-trained teacher would be teaching not only in normal-sized classes of 40 but crowded classes of 60 to 80 pupils! It is, therefore, necessary to thoroughly examine the present problems of practice-teaching and put an end to the struggle of many an institution to achieve the numerical targets of practice-lessons which only turn out confused and frustrated 'trained-teachers'.

(ii) Block-teaching.—The provision of one-week's block-teaching is nothing more than a token gesture towards educational field-work. One week is insufficient for the trainees even to get acquainted with the school, let alone knowing the community. But they are expected to manage school organization, co-curricular activities and community service during this week. If such block-teaching is to be really meaningful, its duration will have to be increased to about 4 weeks and its activities will have to be carefully planned, carried out, evaluated and recorded under due supervision. A longer duration of block-teaching would also help to reduce the emphasis which is placed on the numerical targets of stray lessons. The practice-lessons which rigidly follow the Herbartian steps, do not allow any experimentation in teaching methods or a try-out of the techniques of

group-work and self-study. A variety of teaching-techniques should be encouraged and in Standards I to IV, the methods of pre-school education should figure prominently. The visual aids prepared by the trainees have some connection with practice-teaching, but hardly any with social education, youth welfare activities, community service projects, health education and school-community relations. Since visual aids are extremely important at the primary stage and in community education, a strong emphasis needs to be placed on this aspect of practical work. The maintenance of school records which is a part of the present practical work relates only to schoolregisters. The trainees have no practice in keeping records of the observation of the scholastic, emotional and physical growth of the pupils. Most of the child-psychology which the trainees learn, therefore, is looked upon by them as a set of theories to be mugged up and not as a set of insights into the development of the children, which they must apply to the teachinglearning process. No practice is given in conducting tests and examinations by modern methods. This lacuna needs to be filled up when the present syllabus comes up for a revision.

- (iii) Supervision of Practice-teaching.—It would be possible to coach up even mediocre trainees in the skills of class-room teaching if close guidance and supervision were to be provided by teacher-educators. But the large number of lessons and the small number of teacher-educators in many institutions defeat the very purpose of practice-teaching. It is found that teacher-educators supervise one complete lesson at a time in only 38.6 per cent. of the institutions, two lessons are supervised simultaneously in 45.5 per cent., three in 9.2 per cent. four in 5 per cent. and more than four in the rest. Supervision of more than two lessons in a 30/35 minute period obviously means only a peep into the class-room. It is not the achievement of numerical lesson-targets that would impart instructional skills to the trainees. As few as ten lessons carefully guided, supervised and discussed by an interested teacher-educator would be far more effective than the scores of unplanned, unwatched and ill-assessed class-room performances that go under the name of 'practice-lessons'.
- (iv) Community Life Activities.—The scope of the 'community life' is restricted to the training college community. The preparation for democratic citizenship is expected to be achieved by appointing 'Ministers' for managing the trainees' mess, cleanliness of building and campus, excursions and dramatics, etc. This practice has not found favour with the trainees who feel that their high designations and lowly portfolios are pardody of the ministerial office. This kind of 'community life' gives the trainees little scope to organize activities of community-contact and community-service, or youth welfare. The training programme in 'community life'

needs a reorientation. It should be directed towards giving the trainees an intelligent experience of organizing such activities as scouting, youth camps, youth clubs, health education and physical education, Shramadan, village surveys, social education and projects designed to raise the selfconfidence, self-respect and social consciousness of children and youth. Some such activities figure in the present syllabus, in relation to Community Development. But they are carried out either during the one week's school practice or spora dically during the training course. It is necessry to implement such important character-building and social-service activities in a well organized and continuous manner. They are not to be treated as the 'frills' of the training programme, but the 'core' of the educational process in schools. If work-experience and knowledge of content-subjects are to be characterised as the foundations of an economically strong India. youth-welfare and community-service activities are the means for promoting and guarding the country's social and political security. The training progrmme must accord them due recognition.

- Text-Books and Reference Books.—A survey of the existing educational literature in Marathi was conducted by the State Institute of Education, Maharashtra in 1964-65 with the assistance of a committee of The committee studied 363 Marathi books concerned with different subjects and areas included under the term "Education". It found that in comparison with the growth of education and teacher-training in Maharashtra, the number of books was extremely small. The books on Psychology, Philosophy of Education, Teaching Methods etc. published in the last few years have mainly been written for the examination in teaching but even the simpler among these are not suited to the levels of primary teachers. Most of these books are not written according to the modern outlook on these subjects. Most of them are unrelated to Indian conditions and their contents are largely drawn from English books which are based on the Socio-economic conditions and cultural ideals prevalent in Great Britain or the United States. There is not a single book which would give the primary teachers any guidance for conducting simple educational surveys, investigations and experiments. There are very few reference books such as hand-books, dictionaries or compendium on education or branches of education, which could be of constant use to the trainees. In these circumstances, there is not much point in expecting the training institutions to maintain good educational libraries. Books have to be produced before a Library can be set up.
- 3.18. Extension Services.—The idea of extension services by primary training institutions arose as early as 1947. This extension was visualized as assistance to the schools in the neighbourhood of the institution, to

function well as basic schools. Community education in health and hygene, village improvement project and social education were also extension-activities. The emphasis was more on community service through the agency of schools, than on the improvement of school work. (This concept is quite different from the concept of extension which underlies the extension services by secondary training colleges. Extension secondary level is mainly directed towards the improvement of the curricular work of the schools, through the organization of in-service training seminars and workshops for subject-teachers). Till 1955-56, only a few Government training institutions attempted extension services to nearly 100 schools in their surrounding area. No special funds or staff were available for this work. In 1956, extension services were encouraged by Government in some selected training institutions and their scope was limited to the guidance of primary teachers from a few nighbouring schools. In all 20 Government and private training institutions participated in this scheme and got an annual grant of Rs. 225. 16 other institutions have been attempting community service programmes on their own initative. The aided institutions hold seminars for teachers and headmasters. Mostly, school subjects, teaching techniques, difficulties of craft-work, community relations, are the discussion topics. Outside lecturers are sometimes invited to address groups of teachers. Demonstration lessons and exhibitions are occasionally organized on the pattern of the "Gat-sammelan" as traditionally organized in the State. The provision of funds made by Government is extremely inadequate for extension services of the type the institutions are expected to carry out. The teacher-educators, who are usually overworked, are unwilling to participate in extension activities. In personal interviews, many principals and teachers have expressed eagerness to take up extension activities provided (a) their present load of work is reduced to some extent, (b) either a post of Co-ordinator is created on the staff or extension is included in the total work-load of each teacher-educator, and (c) adequate funds are made available to effectively serve about 50 schools.

3.19. Inspection and Supervision.—The inspection of primary training institutions is conducted by the P. E. O. (formerly District Educational Inspector) on agency basis, on behalf of the State Government. No inspecting officer possesses any special qualifications for inspecting training institutions, except the personal experience of undergoing training and a broad knowledge of the purposes and programme of primary teachertraining. The pressure of work on the inspecting officers is normally so heavy that they have very little time to give academic guidance to the institutions. The performance of the institution is normally evaluated on the basis of examination results. As these are normally quite good in terms of the percentage of 'passes', not much necessity is felt for going into the

question of the real efficacy of the training programme or the satisfactoriness of the conditions of training. The situation has become more difficult since conversion of the post of Educational Inspector into that of Parishad Education Officer who has to work as Secretary to the Education Committee of the Zilla Parishad. He has now to bear a much greater burden of administrative duties than ever before and the inspections of training colleges have become quite nominal.

- 3.20. Present Position of Grant-in-aid.—The payment of grants to non-Government Basic Training Colleges in the State are made in two instalments during the year by the Regional Dy. D. E's. when the allotment is placed at their disposal by the Directorate of Education. (The first instalment is usually paid in the month of July and the second or the last instalment is paid in the month of March after the inspection of the training college and the accounts are checked by the P. E. O's. of the Zilla Parishads and the I. R's. submitted to the Regional Dy. E. E's. concerned). The institutions are aided by way of following grants:—
 - 1. Maintenance grant
 - 2. Dearness allowance grant
 - 3. Hostel grant
 - 4. Basic Craft grant
 - 5. Equipment grant

The details on account of grants referred to above are given below: -

I. Maintenance Grant.—The total expenditure incurred by the college during a year includes expenditure on maintenance of the institution, dearness allowance, hostel expenditure, Craft, term fee, furniture and equipment repairs to furniture, provident fund contribution. The expenditure incurred on D. A. Hostel, Craft, Provident Fund contribution is not admitted for maintenance grant. But grants on these items are paid separately.

The expenditure incurred on the maintenance of the Training College such as pay of teaching and non-teaching staff, Rent certified by the Executive Engineer, Office Contingencies, Books, Furniture, Repairs to Furniture is admitted for grant.

The rate of maintenance grant is at 66²₃ per cent. of the admissible expenditure subject to capitation limit of Rs. 200 per annum per student on average attendance.

- II. Dearness Allowance Grant.—The expenditure on dearness allowance at Government rates is admitted for grant. The rate of dearness allowance grant is 50 per cent, of the admissible expenditure.
- III. Hostel Grant.—The hostel grant is paid on rent of the hostel building. The entire expenditure incurred by the institution on rent which is certified by the Executive Engineer, is borne by the Government subject to Rs. 2 per student per month in rural areas and Rs. 3 p.m. per student in big cities.
- IV. Basic Craft Grants.—The nature of expenditure incurred on craft is of two kinds viz. recurring and non-recurring. No grant is paid on recurring expenditure and the same is to be mer by the management from the income of sale of finished products. The expenditure incurred on non-recurring items is admitted for grant. The rate is 50 per cent. The grants on non-recurring items are paid for two or three years from the opening of the institution only within which it is expected that the management should purchase all kinds of equipment required for craft purposes.
- V. Equipment Grant.—The expenditure incurred on furniture and equipment is admissible for maintenance—grant upto 5 per cent, of the direct expenditure. The expenditure incurred—over and above 5 per cent, is admitted for special grant, the rate of which is 50 per cent. This equipment grant is paid on such items which are required for running the college.

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CHAPTER FOUR

THE TRAINING OF SECONDARY TEACHERS

A. Development

4.1. First Steps.—The need for the training of secondary teachers arose in the Province of Bombay with the establishment of English Schools at most of the district head-quarters. Thinking on the problem began in 1848 and it was considered more desirable to train school-masters for the places of Assistants in English Schools, than importing teachers from England at a great expense. Proposals for the establishment of a regular training college in Bombay were evolved by E. I. Howard; the Director of Public Instruction, in 1856-57. But these had to be dropped on account of the financial stringency created by the political disturbances of 1857. Later, Howard's views on the training of teachers underwent a change. He favoured the appointment of only Englishmen to the posts of head-masters of the English schools and made them responsible for guiding their Indian assistants who were, by and large, university graduates. The Departmental policy in teacher-training came to be dominated by the view that so long as a teacher had a good University degree, no professional training was needed to make him a competent teacher. The Indian Education Commission of 1882 tried to change the situation by recommending that "An examination in the principles and practice of teaching be instituted success in which should hereafter be a condition of permanent employment as a teacher in any secondary school, Government or aided". But it was not readily accepted by the provinces. Finally, the Government of India had to begin to insist on teacher-training. It declared that "His Excellency in Council......... deems it essential that each Local Government should accept the responsibility of providing means for training teachers for each grade of school primary, middle, and high -- as a first charge on educational grants". The Education Department had to yield to these pressures from the Central Government and the Secondary Teachers' Certificate Examination (or S. T. C.) was instituted in 1899. It was "an examination in the knowledge of school-method and the science of teaching". The Head-master of the school was to impart training to the Assistant Masters and the Divisional Inspectors were to examine them in he practice of education. Common printed papers in the theory of teaching were supplied to all the Divisions. examination became very popular because it saved the teachers the trouble and expense of attending a full time training course and yet enabled them to become 'qualified teachers' with the attendant benefits of better emoluments and security of service.

4.2. Establishment of a Training College.—Lord Curzon's resolution of 1904 placed a great emphasis on teacher-education. Realizing the importance of providing competent teachers for the increasing number of secondary schools, the Government of India sanctioned liberal grants to the provincial Governments to enable them to undertake systematic programmes for training secondary teachers. Availability of Central funds soon led to the establishment of the Secondary Training College, Bombay (1906). The College was accommodated in two class-rooms of the Elphinstone High School. It was staffed with two persons only-a Principal who was formely a professor in a Government College, and a Vice-Principal who was an experienced head-master. They managed the training of 35 student-teachers. The total period of instruction in theory amounted to about 18 hours per week. The practical work per student amounted, on an average, to not more than six hours in the year. On the completion of the course, the Department granted the S. T. C. D. (Secondary Training College Diploma).

Right from the start, the programme of training was rather rigid and narrow in conception, as will be seen from the passage quoted below:—

"The study of general educational problems is not encouraged, except so far as they appear in connection with history of education, special attention being paid to the history of Indian Education. Students are warned against over-reading, especially the reading of books narrowly educational..... The only books prescribed by the Department for examination are Quick's 'Educational Reformers' 'Psychology for Teachers'. A course of lectures on school equipment lasts almost the whole year. Two courses of lectures on method have been given—one by the Principal in languages, history and geography and the other by the Vice-Principal in science and Mathematics, general method being dealt with by both lecturers.......During the first term an hour a week is devoted to blackboard writing and an hour a week is devoted to phonetics and elocution during the whole year, special attention being devoted to the delivery of poetry. Demonstration lessons are given For criticism lessons, of which about ten are given by each student during the year, the students do nothing but watch during the first month, then they give lessons under the supervision of the staff..... Science graduates only follow the scientific part of the work and learn in the laboratory the improvements needed for the new science course and to a small extent put boys through them." (D. P. I.'s Report, 1912-1917, pp. 75-76).

4.3. A Degree in Teaching.—The Secondary Training College got affiliated to the University of Bombay in 1923 and the degree of Bachelor of Teaching

(B.T.) was newly instituted by the University. The strength of the college was gradually raised and brought upto 100 in 1932-33 where it has stayed to this day. The tradition of limiting the number of trainees to 100 has got firmly established, and its hold on the minds of the organizers of secondary teacher training in the State, is still quite strong. Between 1932-33 and 1954-55, the number of secondary training colleges in Bombay State rose to 7 in all, including those at Baroda, Ahmedabad and Belgaum.

High School teachers were trained first in the Spence Training College, Jabalpur upto 1942-43. In 1945 University Training College was established at Nagpur. More S. T. (now B. Ed.) colleges were established later. The non-Government colleges charged tuition fees upto Rs. 250 per year while Government colleges gave free tuition besides free residential accommodation and stipend of Rs. 35 per month for 9 months.

Only the deputed Marathi medium teacher-trainees at the University Training College, Nagpur got a stipend of Rs. 40 each per month for men and Rs. 50 per month for women teachers for 9 months. All Hindi medium teacher trainees were paid Rs. 30 per month each for 9 months besides reimbursement of tuition fees.

The curricula for secondary teacher training have undergone very few changes in the last 43 years. The examination is still held in two parts, theoretical and practical, except in the University of Bombay which recently took the progressive step of abolishing the practical examination. The papers on Philosophy of Education, Educational Psychology, General and Special Methods, School Management and Hygiene, still continue unchanged in most of the curricula for the B. T./B.Ed. examination in the six universities in Maharashtra. In the past 10 years, however, optional papers like Basic Education, Rural Education, Physical Education, Vocational Guidance etc. have been added. Till 1939, every teacher under training was required to select either English or Science as a subject for the study of special methods. At present, the choice of any two subjects from the prescribed school curriculum is allowed. A study of the problems in Indian Education, Experimental Psychology (with Statistics), History of Education in India, Educational Administration are treated as important subjects in some universities. The number of practice lessons has gradually increased from the original 10 to 30, but the University of Bombay has again reduced it to 20. Practical work in the preparation and use of audio-visual aids, preparation of projects related to the subjects for special methods, etc. have been further added to the curriculum in practical work. While most of the content of the 1933 course has been retained in the existing B. Ed. curricula, a good deal more has also been added.

- 4.4. "Training" and "Education".-In the past fifteen years, the term "training" has become unpopular and the opinion that a graduate teacher should be given not only skills in "teaching" but also an insight into the overall process of "education" has become prevalent. The degree given at the end of the secondary training course is now called Bachelor of Education instead of Bachelor of Teaching, in order to indicate the wider scope of the present course. Many of the new training colleges are called Colleges of Education instead of Training Colleges. The term "teacher-education" is replacing "teacher-training". But the additions made to increase the scope of the "training-cum-education" curriculum have made it heavy and there is a strong trend of opinion that the period of one year is extremely inadequate for putting it across satisfactorily. Financial reasons have, however, always discouraged everyone from strongly suggesting a two-year course for B.Ed. While acknowledging that prior to 1923, only a diploma was awarded at the end of the one year course. some of our educationists argue that now that the course has been raised to the degree level, we should try to adjust its content rather than increase the duration which would cause a hardship to secondary teachers. The strongest argument cited in favour of a one-year course is the parallel obtaining in the United States, where a one-year programme after graduation is considered adequate to award the M.A. degree in Education. It is, however, obvious that if the existing course is to be conducted effectively, it is necessary to spread it over a longer period. On the other hand, a modification of its content is necessary in order to adjust it to the one-year limit.
- 4.5. Undergraduate Training.—Besides the B.Ed., a training course for undergraduate teachers of secondary schools leading to a Diploma in Teaching (T.D.), has been instituted by most of the universities in the State. It can be taken by a candidate holding the S.S.C. or an equivalent qualification. Its content is similar to that for the B.Ed. course but much simpler and is covered in four papers on theory. The course has not been very popular because it requires full-time attendance and confers on the candidates no more occupational benefit than the S.T.C. which can be obtained much more easily.
- 4.6. Tradition of Co-education.—Right from the start, the secondary unining colleges have been co-educational and have made no distinction of any kind between the training of men and women teachers. A large

number of women (68 in all) are working as teacher-educators in secondary training colleges. Though the training colleges functioning under the S.N.D.T. Women's University are specially meant for women candidates, they have mixed staffs. It is interesting to note that prior to independence, women were not appointed as Principals of Secondary training colleges under Government, on the grounds that either a woman principal may find it difficult to manage a co-educational institution or that the men students may be reluctant to obey her authority. This tradition was broken with the appointment of Miss Amy B. H. J. Rustomjee as Principal of the S. T. College, Bombay. This was due to the progressive policy of the National Covernment, not to make any distinction among men and women for employment in public services. Such appointments have been a direct incentive to women graduates of good academic qualifications to enter the teaching profession and gradually qualify for the posts of teacher-educators.

B. Existing conditions and problems

4.7. General Conditions.—In 1964-65, the number of secondary training colleges in the State was twenty-one. With the opening of six more colleges-three Government and three non-Government-it has now risen to twenty-seven. The college at Gargoti (District Kolhapur), is the only institution in a rural area. There are four colleges in Bombay city alone. The distribution of the colleges functioning under the different universities in the State is now (in 1965-66), as follows: University of Bombay: 3; University of Marathwada: 3; University of Nagpur: 7; University of Poona; 6; Shivaji University: 6; and S.N.D.T. University: 2. Of these nine colleges are conducted by the State Government, three by universities, and the remaining by private organizations. These include three colleges which specialize in Basic Education. For undergraduate teachers of the secondary schools, there are two types of courses, the Diploma in Teaching offered by universities and the Secondary Teacher's Certificate offered by the Education Department. The number of undergraduate institutions rose from 19 in 1955 to 159 in 1963-64. A strong trend of opinion has arisen against the "mushroom growth" of the S.T.C. institutions. Not only has the S.T.C. course been found ineffective in giving the secondary teacher the competence required in the present conditions, but the production of S.T.C. teachers has far exceeded the demand for their services and has resulted in the non-utilization of almost 70 per cent. of them, (This course, which has enjoyed a long life of 67 years and has lost its raison d'etre in the modern world of teacher-education, is to be abolished from June, 1966).

4.8. Buildings and Equipment.—The findings related below, are based on the statistical information concerning the 21 training colleges which were in existence in 1964-65.

Only ten training colleges have buildings meant for their sole use. The remaining colleges are housed either in the buildings of secondary schools/or other colleges/universities. Eleven Principals reported that the buildings were convenient. The provision of lecture halls, class-rooms, principal's office, psychology laboratory, college office, etc., was quite satisfactory in most of the colleges. Satisfactory and separate common-rooms for men and women students are provided by only three colleges. Accommodation for housing the library is above 800 square feet in ten colleges. In all seventeen colleges have provided hostel facilities. Whereas ten colleges have their own bostels, seven depend on rented accommodation. In spite of their best efforts, the secondary training colleges in the State have not been able to securt adequate facilities of staff-rooms, play-grounds and staff quarters.

As regards equipment, most of the colleges have fairly sufficient projection and non-projection A. V. aids, book-stocks required for training purposes and the furniture and other equipment required for class-rooms, offices, etc. The position regarding science-laboratories is, however, quite unsatisfactory. Laboratory facilities are provided by three colleges only. The other colleges avail themselves of the laboratory facilities of the practising schools. Sometimes, the student-teachers find it difficult to get the apparatus required for certain experiments. Those practising schools which are not under the academic control of the training college, are mostly unwilling to allow the trainees to use the science equipment in their laboratories, particularly the chemicals.

Proper use and maintenance of the A. V. aids usually present a problem on account of shortage of special accommodation for that purpose. Only three colleges have been able to provide special rooms for the A. V. Section. The Basic Colleges provide suitable accommodation for eraft rooms. The equipment for experimental psychology is generally adequate for the purposes of the syllabus. However, only twelve colleges could house their Psychology laboratory in a special room.

4.9. The Present Position in respect of Grant-in-aid to Non-Government Colleges of Education and Stipends to Government and Non-Government Colleges.—Non-Government Colleges of Education affiliated to a statutory University in the State of Maharashtra are held eligible for annual grants

subject to funds at the disposal of Government in accordance with the following rules:—

- (1) Maintenance grants at 66 2/3 per cent. of the approved expenditure during the preceeding year or deficit, whichever is less.
- (2) Special grants on construction of buildings at 25 per cent. of the expenditure in suitable instalments, if necessary.

Seventy-five per cent. of trainees are given stipends at the rate of Rs. 75 per month.

4.10. Trainees.-The qualifications for admission to a secondary training college is a Bachelor's degree in Arts, Science or Commerce. Admissions are not selective, because the colleges are finding it increasingly difficult to attract a sufficient number of candidates to fill in even the sanctioned number of seats. However, as soon as the candidates join the college, the staff interview each one in order to discuss the choice of special methods and also to gain a general impression of the candidate's capabilities. Very few teachers are deputed for training either by Government or by private institutions. (To this, Marthawada is an exception. Most of the candidates in that region are deputed by Government). Of the 1,710 candidates admitted to the B.Ed. course, in 1964-65, 439 men and 41 women were deputed teachers. The academic levels of the entrants to the B.Ed. course appear to be very low. The colleges have reported that a considerable deterioration has been evident in the past few years. Among the entrants of 1964-65, only 12 had obtained a first class degree, 411 had obtained a second class, and 1,182, i.e., 70 per cent, had obtained their first degree with a pass class. Post-graduate qualifications were held by 136 candidates. Among them 2 had a first class degree, 37 second class Most of the candidates had previous teching and 97 pass class. experience and the percentage of fresh candidates was only 22. The percentage of candidates below 26 years of age was 26 Sixty-five per cent. were in the age group of 25 to 35 and the rest, i.e., 9 per cent. were above 35 years.

The medium of examination offered by the candidates is usually Marathi in the case of 75 per cent. Nearly 10 per cent candidates offer English, 5 per cent Hindi and the remaining 10 per cent consist of those who offer Gujarati, Urdu, etc. The examination results show a percentage of 88 to 100. Four colleges had 100 per cent. results in 1964-65. The general opinion is that the candidates find it easy to score marks in

the examination lessons and "college work". When failures occur, they are mainly in theory and rarely in practicals.

The colleges complain that in recent years the proportion of candidates with low academic qualifications has been increasing. number of candidates come to the college as "freshers". Many of the candidates are "external" degree holders and have hardly any idea of the kind of corporate life that is led in a college or a university. The number of graduates with Hindi and Marathi is on the increase and, consequently, those who select Hindi and Marathi for special methods are also many. The proportion of Science graduates is rapidly declining. It appears that what is necessary to-day is not so much the development of selection procedures for admission, as urgent measures to persuade good graduates to join the training colleges. The number of women candidates which is rapidly increasing has a fair proportion of bright graduates. This is a good feature and the number of competent women-trainees would probably increase further, if hostel facilities, stipends and free training could be provided for them. Given such small incentives a large number of women B.Sc. teachers and M.Sc. teachers would also come into the teaching Most of the principals felt that it is essential to provide free tution, if not to all the trainees, to women candidates at least. Most of the trainees are normally in financial difficulties and need assistance in the form of stipends. If stipends could be offered on a merit-cum-need basis, and called "scholarships" instead of "stipends", graduates of adequate competence would be encouraged to join the training colleges. There is no doubt that attractive emoluments would draw a larger number of good graduates into the profession of teaching. However, the financial difficulties of the candidates during the period of training have also to be solved with substantial assistance from Government.

The selection of special method subjects by the trainees shows very little co-ordination with the subjects offered by them for their degree courses. By and large, there is an acute shortage of trainees who have graduated with English, Mathematics, History and Geography. Special difficulties are experienced by the trainees who select special methods in General Science because the university courses in Science at the degree level offer only such combinations as Physics-Chemistry, Botany-Zoology, Mathematics-Physics, etc. Since General Science consists of elements from all branches of Science, no Science-graduate who comes in for training is really prepared to teach General Science. Teachers who select Hindi as a special-method are also a problem if they are not university graduates in that subject. A good proportion of them are from

among those who pass graduate-level examinations conducted by special organizations for the promotion of Hindi. These examinations no doubt have a fairly good standard, but they do not always compare favourably with university courses which offer a deeper knowledge of the language.

4.11. Staff.—Most of the staff in the secondary training colleges works full-time. Nearly 50 per cent, of its members work as Lecturers, 25 per cent. as Assistant Lecturers or Masters of Method, 18 per cent. as Professors and Assistant Professors. The part-time staff accounts for about 7 per cent. and consists of Instructors in Craft, Drawing, Physical Education, etc. A study of the qualifications of teacher-educators in the secondary training colleges of Maharashtra, has revealed many weaknesses in the staffling position, though the colleges are required to appoint teachereducators holding qualifications laid down by the Universities to which they are affiliated. In recent years, the tendency to request the universities for relaxation of qualifications has been growing on the grounds that qualified teacher-educators are not available in sufficient numbers. It is found that a large number of teacher-educators are teaching special methods in subjects they had not studied for their academic degrees. The percentage of such teacher-educators is as follows: Geography: 61.5 per cent., History: 54.1 per cent., English: 53.8 per cent., Mathematics: 47.3 per cent. Geography has the maximum percentage of unqualified teachereducators. The number of graduates in History, English and Mathematics, also seems to be most inadequate. However, many of these teachereducators who had not studied certain special method subjects for their academic degree had selected them as special subjects for their own professional training and have thus partially qualified to teach them. Still, there are cases of special methods being taught by teacher-educators who had not studied the content-subject either at the degree level or specialized in it for their professional degree. The percentage of such teachereducators is 23.1 for Geography, 16.6 for History, 8.1 for Marathi and and 2.6 for English. The percentages of fully qualified teacher-educators for the different special methods are as follows: English: 38.4 per cent., Regional Languages: 81.5 per cent., Classical Languages: 94.8 per cent., Hindi: 50 per cent., Mathematics: 52.1 per cent., History: 25 per cent., Geography: 15.4 per cent. As regards Science, though it can be said that all the teacher-educators hold university degrees in Science and have also specialized in the methods of teaching Science, they cannot be considered fully effective as teacher-educators of General Science because they themselves suffer from the same difficulty as their trainces, namely, that of having opted for only two branches of Science for their first academic degree.

The position regarding the general quality of the teacher-educators cannot be said to be altogether satisfactory. This will be clear from the table given below:—

				Graduates		Total
Arts			125	(50	185
Science			30		43	73
	Total	* *	155	103		258
Classes awarded				II	III	Total
Graduates: B.A./B.Sc./B.Com.		2	18	162	78	258
Post-graduates: M.A./M.Sc.	••		7	68	65	140
Professional Qualifications I If III					Total	
Graduates: B.T./B.Ed./D.Ed.	• •		82	146	23	251
Post-Graduates: M.Ed.	••	. •	12	98	66	176
Ph.D.						19

As regards special professional qualifications, the position is much the same. There are only eight M. A. degree holders with Psychology and two teachers of special method in English have been trained at the Central Institute of English at Hydrabad. Twenty-five have had foreign exprience and thirteen from among these hold a degree/diploma/certificate from a foregin university.

The teacher-trainee ratio in secondary training colleges has been fixed at 1: 10, right since 1932-33. The staffing pattern depends on this ratio and no attempt has been made so far to calculate in details the time which a teacher-educator has to devote to the different aspects of theoretical and practical training, in the existing training courses which have undergone several changes since 1932-33. The idea behind the ratio of 1: 10 appears to be that personal guidance for practical work can be consistently offered by a teacher-educator to a group of ten trainees. In the actual working of the college, however, such an arrangement of allotting ten trainees permanently to one teacher-educator is never worked out. The total hours of attendance and lectures per week are governed by university regulations framed for colleges of general education.

Besides the B. Ed. course, 13 colleges in the State Conduct the M. Ed. course (papers). Courses Leading to Diploma in Education, Educational Administration, Educational and Vocational Guidance, are also conducted by six colleges. A few colleges have on their staff recognized university teachers who guide students to take the M. Ed. and Ph. D., degrees in Education by Research. In most colleges, only vacation courses or guidance courses are provided for the M. Ed., students. The work done by the teacher-educators in such courses rarely fetches them additional remuneration. However, teaching the advanced courses brings them a higher professional status and examinerships at a higher level where the remuneration also is high.

Teacher-educators who work as Masters of Method do hardly any teaching and are assigned the work of guiding and supervising of practice lessons only. No satisfactory system of co-ordinating the work of the Masters of Method with that of the lecturers who teach special methods in the various subjects, appears to have been evolved so far. There was a complaint from some educationists that the appointment of Masters of Method has led to the infusion of low quality staffs into the training colleges. Some colleges have shown a tendency to appoint persons of low qualifications to posts of Masters of Method, and have subsequently sought recognition for them for appointment to higher posts on the ground of the experience gained by them in the training colleges. Such attempts have diluted the quality of the staff at the lecturer's level.

Teacher-educators in the secondary training colleges are expected to give guidance to groups of adult students: but there is no provision for their training or orientation in working with such groups. Group-guidance, therefore, is a rather haphzard affair. There is a general agreement, therefore, that orientation needs to be given to teacher-educators of the secondary

training colleges in such group methods of teaching and learning as organization of seminar discussion, syndicated studies, study-circles and symposia, workshop methods and self-study assignments, etc.

The emoluments of teacher-educators give them little scope to subscribe to educational journals or to buy books on education for their personal library. Well-stocked libraries exist only in a few colleges and even in those it is difficult for the teacher-educators to find time for quiet reading during college hours. There are hardly any incentives for teacher-educators to undertake investigations and experiments, contribute articles to educational journals or to write original books on education. Their limited background of reading prevents them from knowing the new ideas in education which would normally induce them to undertake experiments or write arti-There are no subject-associations of teacher-educators who teach the different subjects in the curriculum. There is hardly any scope for the, teacher-educations to participate in the programmes of the Head Masters' Federation and the Secondary Teachers' Association which are fairly active in the State. Apart from the contact which extension services have made possible between some colleges and secondary schools, no means exist at the moment for removing the isolation of the teacher-educator from the realities of the class-room in the secondary school and the growing body of knowledge on the problems of secondary education.

4.12. Duration of Training and the Curriculum.—The duration of the B. Ed./B. T., course is about 9 months. The total number of working days in the course comes to about 180. Of these, several days have to be utilized for holding examinations, conducting co-curricular activities, celebrating national days, organizing social gatherings and sports-meets, etc. The total instructional period, therefore, comes to only about 130 to 140 days. There is no need to emphasize the extreme inadequacy of this period for giving effective training to the secondary teacher. In colleges functioning under the universities which have abolished the practical examinations, nearly thirty more days become available for instruction as the time spent by the staff and the trainees in preparing for the examination and the actual period of examination, can be saved.

The curriculum has shown very few changes in the past twenty-five years. Recently, however, some teacher-educators have been struggling to modernize it but have not met with sufficient encouragement, in some of the universities. The objectives of the secondary training curriculum do not seem to have been clearly defined as yet. Changes effected so far have merely served the need of the moment and very little fundamental thinking on the curriculum appears to have taken place.

There is a general complaint about the weakness of the trainees in subjectknowledge. It is difficult for lecturers in special methods to give adequate insight to the trainees into the techniques of teaching when the foundations of subject-knowledge are weak. There is a suggestion that content-subjects may be included in the curriculum. However, it would be extremely difficult to do so as there is an opposition to increasing the duration of the B.Ed. course from one two years. The solution to this problem seems to be the organisation of content-courses and award of certificates and diplomas by universities/Education Department. Another suggestion is to make it a strict rule that special method in a subject which has not been the subject of graduation of the trainee, should not be allowed to be chosen. However, the supply of graduates academically qualified in the various subjects related to the school curriculum is so unbalanced that exceptions will have to be made in the case of such subjects as General Science, Social Studies (particularly Geography) and English. A solution which appears feasible lies in providing extra papers in subject-knowledge which can be taken together with the other papers in the B.Ed. examination, and the award of the degree only if the candidates concerned pass in these extra papers.

4.13. Practical Work.—The organisation of practical work emphasizes stray lessons for practice teaching. The major deficiency of this system is the artificiality of the lessons and their usclessness in giving teachers consistent practice in taking the same group of children through the successive stages of learning a subject-unit. Hardly any experience can be given to the trainee, under the present system, in school management and organization of out-of-class activities for the pupils. The number of lessons prescribed in most of the universities (except Bombay), is thirty for experienced candidates and fifty for freshers. The emphasis on "lessons" seems to be based on the misconception that the training of the teacher is restricted only to his guided performance in the class-room. This arrangement encroaches considerably on the teaching time of the practising schools and makes them unwilling to co-operate with the training institution. The supervision of the vast number of lessons poses a big problem and it is sometimes solved by the easy device of asking one Master of Method to observe three lessons simultaneously by dropping into each class-room for a few minutes at a time. This is peculiar idea of guidance and supervision of practical work.

Though in most cases, practising schools are attached to the training institutions, very little experimental work is done in them. Besides, the load of practice-lessons is so heavy in the practising school that the studies of the children often suffer greatly because of lack of consistent and co-ordinated teaching. The worst aspect of relying heavily on one practising school is that the children develop a kind of "lesson-weariness". In many practising

schools, the children have got so accustomed to the "Herbartian steps" that they often attempt to guide a fresh teacher in drawing up his lesson plans. Many principals and teacher-educators have suggested that instead of isolated lessons the practice of block-placement or internship of the trainces should be followed. Schools should be selected carefully for such placement, accorded a special status and given some grant-in-aid for buying the educational equipment required for training. Their staffs should be given special orientation in guiding the total work the trainees in the school. For all practical purposes, the trainees would be considered as supernumerary assistants in such co-operating schools. The system of block teaching is adopted by the colleges working under the University of Bombay. Most colleges appear to find this idea congenial. Of the twenty-one institutions studied in 1964-65 only eight had their own practising schools and the remaining thirteen had to take the assistance of other schools for arranging practical work. These colleges would very much prefer to have co-operating schools to attached practising schools.

- 4.14. Medium of Instruction and Text-Books.—The examination papers for B.Ed./B.T. are set in English and rectures may be taken either in English or in any of the regional languages, provided all the trainees so desire. Option to write the answer—scripts either in English or Marathi, Gujarati, Hindi has been given and nearly 15 per cent. of the trainees avail themselves of the facility to use the regional languages. However, lecturing as well as writing of answer scripts in the regional languages becomes handicapped by the severe paucity of suitable text-books in the regional languages and Hindi. The English text-books prescribed for study and reference are normally very difficult for the trainees. Some of the English text-books are quite old, first published as far back as 1920, though revised around 1945 or so. Many of them are unrelated to the cultural and educational requirements of our people. In order to support revised and improved curriculum, it would be necessary to launch a project of preparing standard text-books in the regional languages, on different aspects.
- 4.15. Research and Extension.—Extension Services Centres are conduced by 4 colleges with financial support from the N. C. E. R. T. Four centres supported by the Education Department are now conducted in two colleges. Extension activities enable the colleges to keep in touth with the problems of secondary schools, provide in service training to secondary teachers, and re-examine the ideas on teaching techniques in schools. The programmes of extension have generally been found very useful in removing the isolation of the training institution and lending some realism to their theoretical and practical work. It is felt that extension should be a part and parcel of the total programme of every training college. It is further necessary to consider the participation in extension activities as an essential aspect of the total work of every teacher-educator, to be normally reflected in his workload.

It is found that there are no two opinions on the utility of extension services and the colleges look upon them as means for modernizing the outlook of the staff and improving the training programme.

Since most of the training colleges have to engage in a hectic programme of theoretical instruction and practical work to be finished in about 150 days, hardly any research can be undertaken by their staffs. Barring the work done by the students reading for their M.Ed. or Ph.D. degrees by research, very little research activity is evident in the colleges. Moreover, the research projects undertaken by the post-graduate students appear to take very little notice of the actual and urgent problems of education in the State or the country. Probably, when a wide scale participation in extension services brings the teacher-educators face to face with the actual problems of secondary education, the research activity in the training colleges would increase and have greater relevance to the prevailing educational situation. Many colleges have been feeling the necessity to develop collaborative projects in which staffs of different colleges could participate. However, it has not been possible for them to work out this idea so tar, mainly for want of a suitable organization which could bring them together for such team-work and also for want of the financial assistance which is necessary for extensive collaborative projects.

- 4.16. Inspection and Supervision of Training Colleges.—The Secondary Training Colleges are subject to the regulations laid down by the universities in respect of staffing, buildings, equipment, library, laboratory, etc. The recognition of the colleges depends on their satisfactory fulfilment of the conditions for recognition laid down by the universities. Periodical inspections of temporarily recognised colleges take place and extension of recognition is granted if the college is found to fulfil the required minimum standards. However, these inspections are purely administrative and contribute very little to the growth of the academic standards of a college. It is increasingly felt that there is a necessity of co-ordinating the programmes of all the teachers' colleges in the State, though working under different universities, and raising the levels of their academic work. Many principals and educationists have suggested inspections of colleges by a panel of experts consisting of an educationist, one outstanding Head-master of a secondary school, a representative of the University, and a representative of the Education Department, in order to improve their material conditions as well as academic functions. Such academic inspections should take place at least once in three years and when good standards are established in a college, the frequency of inspection should be curtailed.
- 4.17. Training of Secondary Teachers in Marathwada.—At the end of the Third Five-Year Plan, the total number of secondary teachers in Marath-

wada stands at 5448. Among these, 2723 that is 50 per cent, are trained and the back-log of 2725 untrained teachers will have to be cleared as early as possible. The total number of graduates working at the secondary level is 1,372 of whom 775 are trained and 597 are untrained. During the Fourth Five-Year Plan period, recruitment of nearly 1,000 secondary teachers is anticipated to cope with the normal expansion which will take place in secondary education. During the Fourth Five-Year Plan, therefore, training facilities will have to be provided for nearly 1,600 secondary teachers from Marathwada lone. At present there are three secondary training colleges The College of Education at Aurangabad has an intake in the Region. capacity of 110; the newly opened College of Education at Ambejogai provides 60 seats and the non-Government College of Education at Osmanabad has an intake capacity of 60 trainces. With this capacity, these colleges would be able to train about 1,000 teachers during the Fourth Five-Year Plan period. At the beginning of the Fifth Plan, there would be a back-log of 600 untrained graduates and further recruitment would increase this number. Direct recruitment of trained teachers would help to reduce the back-log of untrained teachers, but it would be difficult to find trained graduates in sufficient numbers on account of the overall expansion of secondary education throughout the State. It would, therefore, be necessary either (i) to start more colleges of education or (ii) to increase the intake capacity of the existing colleges. The latter appears to be a more effective way of making the colleges educationally effective as well as economically viable. In order to increase the proportion of trained graduate teachers in Marathwada expeditiously, it would be necessary to pay a concentrated attention to increasing and upgrading the training facilities for secondary teachers in that region. सत्यमेव जयते

CHAPTER FIVE ADVANCED COURSES IN EDUCATION

A. Development

- The M.Ed. Degree.—The degree of Master of Education (Research) was instituted by the University of Bombay in 1936. The Ph.D. (in Education) came to be instituted in the same University in 1941. In 1948, provision was made to take the M.Ed. degree either entirely by papers, or partly by papers and partly by research. All the Universities in the State have now instituted the M.Ed. degree which can be taken either entirely by papers, partly by papers and partly by research, or entirely by research. However, in recent years, there has been a trend to withdraw the provision for taking M.Ed. either by papers or research alone, and a combination of papers with a small 'research dissertation' is mostly favoured. The M.Ed. can be taken in one year in an intensive course, or in two years by attending 'vacation courses' and 'guidance courses' in which periodical lectures are delivered. It has become very popular with teachers who aspire for higher professional status or desire to compensate for unsatisfactory achievement in a previously completed general or professional course. However, since inattention to the entrance qualifications for the M.Ed. course had begun to result in a considerable extent of 'drop-outs' there is now a tendency to admit to it candidates with at least a second class professional degree, though a 'pass' in the academic degree is still widely tolerated. It has gained in value firstly because of this trend and secondly because it is becoming a requisite qualification for posts in training colleges and educational administration. In 1964-65, the State had 437 students, of whom 121 were women, in all types of M.Ed. courses.
- 5.2. Educational Research.—Research in Education has also been receiving considerable attention in the past few years. But co-ordinated and collaborative research is yet to develop in the colleges of education. There are two research institutes in the State, viz., G. K. Institute of Rural Education (Shivaji University) and State Institute of Education (Poona University). They work only at the post-graduate level. The State Institute of Education is committed solely to applied research in order to help in solving the educational problems in the State. The G. K. Institute also has shown an increasing trend in conducting applied research, particularly for the solution of the problems of rural education. In 1964-65, 18 students including 10 women, were enrolled for the Ph. D degree in Education.

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B. Present conditions and problems

5.3. The Masters' Degree.—The development of the M.Ed. courses during the last 20 years has been a factor of very great significance in the field of education. It has led to an increase in the qualifications of the teacher-educators in B.Ed. colleges and has indirectly improved the quality of the B.Ed. courses. It has brought greater dignity and confidence to the teaching profession as a whole, though the last named effect has not yet been consciously noticed either by the profession or the public. The objectives of the M.Ed. course have been to give the trained teacher a deeper insight into education, create in him an urge for experimentation and research to solve the factual problems of education, and to make the nature of advanced studies in education explicit enough to convince the universities of the status of Education as an important 'discipline' in the sphere of higher learning. However, the original objectives have been obscured by the race to produce more Masters of Education. Like all other degree courses, this course also has become diluted, perfunctory, and examinationridden. Its curricula are now as cluttered up with accretions of topic after topic of job-utility' imposed over traditional matter as those for the B.Ed. course. Several changes are necessary to streamline and modernize their content, make them more functional and harmonize them with their objectives. The M.Ed. course should lead to the preparation of high level educational workers for different tasks such as supervision of schools, educational planning, administration, teacher-education, curriculum construction, examination reform, vocational and educational guidance, child-guidance, child-education, extension services and in, service education, educational and social research, etc. Field-work and practical training should be obligatory for all branches of specialization. Suitable core-courses and courses for specialization need to be devised, keeping in view the types and number of functionaries needed in the educational system. It may be useful for each institution/unversity to concentrate only on three or four areas of specialization. Duration, admission qualifications, incentives and facilities are matters to be thoroughly re-examined for the reorganization of the M.Ed. course. It would be useful to note here that the Review Committee on Education appointed by the University Grants Commission has recommended that the M.Ed. course may include the following:

A. Core Courses:

- (i) Philosophical and Sociological Foundations of Education (to be taught with reference to current educational problems in India and abroad).
 - (ii) Elements of Educational Research.

- B. Areas of Specialization.—(Three papers, one or two of the following areas):
 - (i) Educational Psychology, Measurement, Counselling and Guidance.
 - (ii) Educational Planning, Administration and Supervision.
 - (iii) History, Philosophy and Sociology of Education.
 - (iv) Comparative Education.
 - (v) Curriculum Development, Text-books and Teaching.
 - (vi) Methodology of Educational Research.

C. Research Project

D. Viva Voce

The term 'area of specialization' implies a group of related subjects, each of them to be viewed as a special branch of knowledge, possessing enough potentiality for development. The provision of a viva voce, as recommended by the U. G. C. Committee is a significant and desirable departure from the existing provision for M.Ed. examination in most universities. This provision already obtains in the University of Nagpur.

5.4. Attracting better Calibre for M.Ed.—The compensatory character of the M.Ed. degree will have to be removed as early as possible by restricting the admission to candidates who are worthy of undertaking post-graduate studies. Further, M.Ed. should be looked upon as a required qualification for recruitment to the higher posts in the Education Department. Such a regulation will automatically increase its value and students of better accomplishments would be drawn towards it in greater numbers. The M.Ed. course should be thrown open to graduates with a good Bachelor's degree in any faculty related to education, and a special two-year course may be designed for them, with sufficient provision for giving them a sound understanding of the problems of schooleducation, through a programme of observation and practical work in schools of different types. The reluctance of the brighter variety of graduates to join the teaching profession and to undergo the B.Ed. course often stems from a fear of losing their higher academic perceptions while holding converse with the immature minds in the school class-room. The pedagogical content of the B.Ed. courses offers very little challenge to intellects which take pleasure in grapping with the complex problems of "education" as distinguished from "class-room techniques". Direct admission to a two-year M.Ed. course, which may include some element from the B.Ed. course and comprehensive field-work related to the candidates' area of specialization, would go a long way in solving the problem of attracting towards the field of education those brighter graduates who value academic heights.

Special incentives such as fellowships and scholarships are also necessary to attract able students towards the M.Ed. course. The amount of such incentives should be generous enough to keep the students free from financial worries and should be awarded on a merit-cum-means basis. The number of students at this level will always be so small that the financial support to their studies would not constitute much of a burden on the education budget. It would be necessary for the University Grants Commission and the Ministry of Education to accept this financial commitment for the next ten years or so, after which the States may come forward to share this expenditure proportionately, in order to meet their increasing needs for highly trained educational personnel. The question who provides the funds for post-graduate studies in Education is not very material, when it is conceded that investment in this sector will pay rich dividends in terms of rising educational standards throughout the country.

It is unnecessary to emphasize that if students of greater competence are expected to join the M.Ed. courses, the professors who teach them will also have to be of very high competence. It would be desirable to entrust each component subject of the Course to a specialized teacher-educator, drawn not only from among professional educators but also from university teachers of all disciplines related to Education.

5.5. Doctoral Studies in Education.—The members of the staff of colleges of education must note without delay the growing complexity of the body of knowledge called "Education" and strive to achieve its wider and deeper understanding in order to be able to teach it successfully. Teaching at the higher levels, however, can rarely be meaningful unless it is backed by continuous enquiry and a close acquaintance with the findings of research. Effective university teaching in any subject primarily means a clearly presented statement of the findings which alert and enquiring minds have put together after scientifically probing into the ramifications of a knowledge-area. In such teaching, where research becomes manifest and is discussed in the class-room, arises the direction for further research. The growing body of knowledge in education can be comprehended, added to, and systematized only through teaching which makes research manifest, and through research which makes teaching meaningful. For raising the teaching of "Education" to such

heights, the teacher-educators working at the university level require training in research. For this purpose, it may soon be necessary to make Doctorate in Education an obligatory qualification for their recruitment. Among the experienced and dedicated teacher-educators, we may of course, find some restless scholar who has taught himself to engage in the kind of teaching and research indicated above. But such cases would always be extremely rare. Measures have, therefore, to be taken to create conditions which would encourage the staffs of colleges of education to undertake doctoral studies. As matters stand at the moment, many difficulties have to be faced by those who undertake research for the Ph.D. in Education. Heavy expenditures are involved, if the investigation depends on wide-scale experimentation or field work. The preparation of the thesis is a costly affair. While drafting the thesis it is necessary for most students (who normally hold full-time employment), to go on leave in order to devote concentrated attention to their work. This puts them to some loss of money. The difficulty of finding a competent guide who can also spare enough time to direct the student, is almost as great as the financial difficulty. Most of the recognized university teachers in education are Principals of colleges of education busily engaged in their administrative and other duties which leave them little time to guide their students. If the guide happens to be a Professor, his normal burden of academic duties is heavy enough to result in inattention to his research students. Again, because there are very few university teachers in Education and the number of knowledge areas in education is vast, students working on a wide vareity of educational topics ranging from history of education to experimental psychology, are often found working under the same guide. Sometimes the guide's area of specialization happens to be something quite different from that of any of his students. Provision of a sufficient number of competent guides specializing in a variety of specific knowledge areas and having enough time to devote to the research of their students, needs to be made, if the doctoral programme in education has to be improved and accelerated. A point which should be emphasized here is that a research guide must be a person who is himself engaged in important research. This expectation is not always fulfilled. There is yet no system for maintaining panels of experts in various areas of education, to work as referees. This results in these being referred to persons who have no interest and depth of knowledge in the topic of investigation, and candidates fail to get their work approved for no fault of their own.

5.6. Lack of Incentives to Research Students.—A major difficulty at the doctoral level is the absence of enough financial provision and editorial

assistance from the university to publish the thesis. Though it is not necessary to publish all theses in the book-form, it is very essential to publicize the findings of all research, through journals conducted by universities and research organizations of the university level, so that there may be no duplication of projects and that the work done by a research scholar may become known.

5.7. Reorganization of the Doctoral Course.—The Ph.D. degree is at present taken by the continuous investigation of a single problem over a period of two years (after M.Ed.) and a thesis on the investigation is submitted to the University at the end of this period for being examined by external referees drawn from other universities. The shortcomings of this procedure are many. In the first place, the elementary background research methodology gained in the M.Ed. course proves insufficient while conducting an investigation which concentrates on a specific item from an area of specialization. For instance, the theory of sampling broadly studied from a book on methodology is not helpful to the same extent in different projects concerned with standardization of tests, study of socioeducational problems, financing of educational institutions, mental health of teachers, use of instructional techniques or the effectiveness of curricula and text-books. A deeper study of the research procedures suitable for the topic under investigation, is essential for conducting worthwhile research. However, since to-day's doctoral student is tomorrow's research guide, a training in research methodology severely limited by the kind of topic he may have selected, is also undesirable. For instance, a student who takes a review of educational development in a certain area, over a certain duration of time, gets acquainted only with the historical method of research and remains largely unaware of new developments in the experimental method in curricular research or the participant-observer method in social research. If the doctoral programme is not to rest content with granting a degree but is to enable its recepient to undertake further researches himself and also to become an effective research guide, he must be given a good grounding in the different types of methodologies used in social and educational research. It would, therefore, be advisable to offer a deeper as well as more comprehensive course in research methodology and social statistics as an obligatory part of the studies for the Ph.D. degree. Besides, some course-work should be compulsory in those knowledge areas which from the background of the topic for investigation. If the topic of investigation concerns educational sociology, the student should take a foundation course in sociology, if he has not already studied it at any previous stage in his education. Nearly 50 per cent, of the work for the Ph.D. degree should consist

of intensive course-work in research methodology and foundation subjects, requiring attendance at seminar discussions and lectures. The remaining 50 per cent. of the work would be reserved for conducting the investigation and writing out the thesis. The examination for the Ph.D. degree should consist of three parts: (a) written examination in course-work, (b) examination of thesis, and (c) an oral examination. In the oral examination, the candidate should be required to defend, before a panel of experts including his guide, the methodology, and findings of the investigation conducted by him. It is only in this manner that good research workers in education can be produced and the results of their labours utilized not only for the improvement of the educational system but for raising Education to the status of a discipline having a rightful place in the sphere of higher learning.

5.8. Development of Departments of Education in Universities.— No University in Maharashtra has yet created a Department of Education devoted to post-graduate teaching and research. Since the contribution of the two research institutes in the State, will mostly be in the field of applied educational research and provision of in-service training for teachereducators and administrators, it is essential that the task of conducting comprehensive and fundamental research in Education and organizing the study of Education as a discipline is undertaken by the universities. The participation and leadership of universities not only in solving the present problems of education but inducing new trends in educational thinking and practice, will invest the educational system with quality and dynamism. The Department of Education can offer Education as a subject for part-fulfilment of university courses both at the under-graduate and graduate levels. It should be possible for the universities to institute the M.A. degree in Education on the same lines as the M.A. in Education offered by the major universities in the U.K. and U.S.A. An M.A. degree in Education to be taken in two years, after the first degree in any subject, would be an asset for creating a cadre of teacher-educators who are specialists in mathematics, physical and biological sciences, branches of humanities, and the different languages required at the school-stage. With their deep subject-knowledge and a comprehensive background in education (as differentiated from "pedagogy"), they would constitute an effective means of bringing quality into the teacher-education programmes. In the U.S.S.R. post-graduate students working even in professional courses like Engineering and Medicine choose a course in Education, as they are required to be both practitioners and teachers of Engineering or Medicine. In the advanced courses of practically all the faculties, a programme of

acquainting the students with Education as a subject, needs to be invariably offered, in order to automatically prepare competent teachers for the graduate and post-graduate courses. The importance of such a built-in-programme of teacher-education at the post-graduate stage in all the faculties of a university cannot be too greatly emphasized, if competent university teachers are to be considered as the key for opening out to the country, the doors to social and economic progress. It should be the obligation of the university, Department of Education to provide the courses required for such automatic preparation of graduate and post-graduate teachers.

The reasearch programme of an institute like the State Institute of Education which is committed to intensive and expeditious efforts for educational improvement should usually be directed towards the solution of problems of an immediate nature. The colleges of education will mainly undertake studies related to the instructional process in schools and much of it will be concerned with the improvement of curricula, text-books and techniques of teaching. The need for promoting a substantial programme of comprehensive educational research of a fundamental nature, can only be met by the university Departments of Education which would have at their disposal the personnel resources from other Departments of the university, for the inter-disciplinary approach required to study the fundamental problems of education. Such research may have to be conducted over a number of years, require a large personnel and considerable funds. University Grants Commission could be persuaded to assist the University Departments of Education by liberal grants and provision of expert consultants from India and abroad.

5.9. Centres of Advanced Studies.—It would be desirable to set up in one or two universities in the State—at least in one, to begin with—Centres of Advanced Studies, which would undertake the investigation of significant problems in the country, invite co-operation from similar centres established in other universities, and offer its guidance to high-level personnel working in the field of education through personal contact, seminars and study-groups. Apart from conducting valuable research, there is a considerable need to refine and develop a variety of research procedures for different types of investigations in Education. It should be the task of the Centre to continually develop new research insights and procedures suited to the study of the educational problems of a developing country like India. A part of the staff of such a Centre should always be made up of deputed post-graduate teachers from the University Departments of Education and Research Institutes not only in the State but from out-

side as well. A constant communication of Education, at the highest intellectual level, with other research workers in the country and abroad would not be easily possible without the establishment of such a Centre which would have the facility of being free from the day-to-day pre-occupations of conducting regular courses in Education.

5.10. Co-ordination of Advanced Studies.—The State Department of Education should set up a Standing Committee for co-ordinating the activities in educational research and teaching, at the post-graduate level, conducted throughout the State. Heads of University Departments and Directors of Research Institutes should be members of this Committee which should function under the Chairmanship of the Director of Education. The Joint Director of Education entrusted with the administration of universities should be its member-secretary. The Committee should meet once a year to evaluate the work already undertaken and to plan further programmes. Such co-ordinated thinking and co-operative effort on the part of the universities in the State would undoubtedly assist in finding solutions to the problem of improving the standards of education and the quality of teachers.

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CHAPTER SIX

IN-SERVICE TRAINING OF EDUCATIONAL PERSONNEL

Development:

The Need for In-service Education.-The necessity of providing in-service training courses for all types of educational personnel has become increasingly apparent during the past ten years. New problems have arisen in the field of education and new knowledge and skills are required to understand and solve them. Much of the pre-service training received by teachers or other educational workers has now become out of date and the experience collected in the traditional performance of their jobs is proving quite inadequate to help them to work with continuous efficiency. Besides, the nature of the work of several functionaries in the field of education has been changing very rapidly, not simply under the impact of post-indepandence tasks of reconstruction, but also under the diverse stresses created by a world-wide explosion of scientific knowledge, sudden shifts in international relations, the explosion of expectations inevitable in a new democracy, and the challenge to reconcile the problem of numbers with the problem of quality in education. The educational administrator has to concern himself now with the developmental programmes more than with the enforcement of rules and regulations for keeping the educational provision stable. While the teacher-educator of the primary level has to train teacher of increasingly higher academic qualifications, those at the secondary level have to contend with the low quality of the trainee. The socio-economic backgrounds of the pupils now flocking to schools are far different from those common as recently as ten years ago. The quantum of knowledge which has grown fast since the Second World has made our teacher-training programmes and school curricula antiquated, and concepts of education obsolete. Teachers have to prepare themselves for instruction in subjects and branches of subjects they had College teachers who had very little difficulty not handled ever before. in the past in motivating the students to study hard, are unable to cope with the type and number of young people who are carried to colleges on the flood of educational expansion. The college-teacher, therefore, has to prepare himself for a task which was not anticipated by him twenty or even ten years ago. A new understanding of their functions in these times of flux and a knowledge of new techniques demanded by their

changing roles, is now most urgently needed for every-one working in the field of education. The movement for in-service programmes in education which began barely eleven years ago in the sphere of secondary education has swiftly extended its scope and gathered in its folds not only school teachers but all types of educational personnel.

6.2. In-service Education of Secondary Teachers.—In-service education began to be provided for secondary teachers in 1955, through the National Council for Secondary Education set up by the Ministry of Education. The Council promoted the establishment of Extension Departments (now called Extension Centres) in secondary training colleges. They were entrusted with the work of organizing extension services for providing orientation to teachers and improvement programmes to schools. The principal of the college was designated as the Hon. Director of the Extension Services and an extra teacher-educator was appointed as Coordinator to manage the day-to-day programmes of extension and to coordinate the activities of the schools in the extension area. Though it was not possible for the colleges to serve a very large number of schools and teachers, the programmes became quite popular and created a new interest in the teacher-educators and the teachers, in professional improvement programmes. In Maharashtra, there are four Extension Services Centres financed by the N.C.E.R.T. and two financed by the State Government. Gradually, every secondary training college/college of education, will be conducting Extension Services as a built-in device for enabling the teacher-educators to maintain realism in the training programmes and for enthusing teachers to follow the training further and improve the techniques learnt in their pre-service training. In addition to the Extension Services provided by teachers' colleges, other programmes for the in-service training of secondary teachers have come up recently. Training in Workshops and Seminars held by the Evaluation Unit of the State Government is provided for helping the teachers to carry out examination reforms. The Institute of Vocational Guidance conducts courses for preparing Career Masters and for orienting headmasters and teachers of secondary schools into the objectives and programmes of educational and The Inspectorate for Visual Education organizes vocational guidance. short courses for orientation in the preparation and use of A. V. aids. Summer Institutes organized for teachers of Science in higher secondary schools, is another programme of in-service education provided through the Co-operative efforts of the University Grants Commission and NCERT. Some of the teachers' organizations like District Headmasters' Associations or Associations of Secondary Schools like the one in Ratnagiri district

or Association of subject-teachers organize in-service programmes for their members. In some districts, groups of schools have set up their own extension service with guidance and encouragement from inspecting-officers.

- 6.3. In-service Education of Primary Teachers .- At the primary level, programmes of in-service education have started only recently. In-service orientation courses for the teaching of Hindi and organization of Social Education activities were organized in the State since long, but organized programmes of general in-service education did not exist. As a part of a scheme prepared by the Ministry of Education and conducted by the N.C.E.R.T., three Extension Services Centres for the improvement of primary schools and teachers are now functioning in the State. They are attached to the G. K. Institute of Rural Education, Gargoti, Rural Institute (Amravati) and the State Institute of Education (Poona). Each Centre selects a group of fifty contiguous primary schools, conducts training programmes for their teachers and makes a concentrated attempt at school improvement. Seminars and Refresher courses for primary teachers in urban areas are often organized by municipal corporations of Bombay and Poona. Many other local bodies carry out similar programmes under the auspices of their Education Committees. But no widespread attempts have yet been made for the provision of in-service training.
- 6.4. In-service Education of Pre-primary Teachers.—Hardly any provision exists at present for the in-service education of pre-primary teachers. Some training institutions carry out follow-up activities by corresponding with their alumni or visiting them whenever possible. Some institutions invite them for a seminar during vacations and discuss new problems of pre-primary education. The participants of these programmes bear the travelling expenses and the training institutions provide other expenditure. Pioneering work in this respect has been done by the training institution conducted by Smt. Mayadevi Bhalchandra at Yeotmal.
- 6.5. The In-service Training of Teacher-educators.—The in-service training of teacher-educators of primary training institutions began when Graduates' Basic Training Centres were established in the old Bombay State for conducting a one year intensive course for preparing teacher-educators for Basic Primary Training Colleges. For the teacher-educators of the pre-primary and secondary levels, no training or orientation courses have been organized in the State so far. For teacher-educators of the special training colleges which prepare teachers of English for Standards V-VII, a one year course has been devised in collabaration with the

British Council, through the recently established State Institute of English. Seminars and conferences for teacher-educators of the secondary level are organized by the various departments of the National Council of Educational Research and Training and particularly by the Department of Extension Programmes for Secondary Education (which is now designated as Department of Field Services), of the N.C.E.R.T. With the establishment of the State Institute of Education in Poona, in 1964, four-week in-service courses are offered for teacher-educators of primary training institutions.

- 6.6. In-service Training of Educational Administrators.—In-service courses for educational administrators are of very recent origin. Courses for the supervisory personnel of institutions like principals of training colleges and headmasters of high schools, used to be conducted by the N.C.E.R.T. However, hardly any provision existed in the State for the training of educational administrators. A departmental examination in the rules and all administrative staff of the Education Department; but technical orienregulations concerning administration of education has to be given by tation in the administration of educational programmes and personnel is not provided. The establishment of the Administrative Staff College in Bombay, under the supervision of the General Administration Department, began to provide orientation in developmental administration to high ranking officers of all departments. Class I officers from the Education Department participate in these training courses. The State Institute of Education has begun to provide four-week in-service courses for the training of A.D.E.Is. (Educational Extension Officers). At the moment, this is the only provision in the State for the specific training of educational administrators and supervisors.
- 6.7. In-service Training of Collegiate Teachers.—There are still no specific programmes of in-service education for collegiate teachers, though the Radhakrishnan Commission had recommended them as far back as 1948. A seminar of principals of rural colleges in the State which was held at Bhatghar in March 1963, strongly recommended the organization of inservice training for the professional preparation of collegiate teachers, particularly at the under-graduate level. Considerable interest in courses for the in-service education of junior college teachers, was in evidence after the recommendation of the Seminar. However, they are not yet organized on a continuous and permanent basis. The Seminar had particularly emphasized the need to orient collegiate teachers in modern techniques of teaching. Colleges of Engineering have been organizing such orientation for several years past. Some colleges of general educa-

tion have recently tried to establish a liaison with Colleges of Education and invited teacher-educators to give orientation to junior lecturers in the techniques of instruction. However, the Colleges of Education have not yet much interest in this new avenue which is voluntarily opening out for their activities.

B. Present conditions and problems:

In-service Training for Secondary Teachers,-The in-service training provided through the extension service centres of colleges of education have undoubtedly given a fillip to the idea of organizing more and intensive programmes for the continuous professional development of teachers. The extension activities, as they are conducted at present, have only touched the fringe of the problem and have highlighted the necessity of involving inspectors' and teachers' associations in the in-service programmes to a much greater extent than what has been attempted under the existing schemes of extension. A recent evaluation of the secondary extension services has revealed that seminars and workshops of a very short duration do not have much impact on the instructional skills of teachers. School improvement programmes through projects which are isolated from the rest of the educational activities of a school have contributed very little to curricular improvement. The lack of orientation to inspecting officers in the methods of assessing the work of the teachers who have undergone training in the extension programmes, and the non-participation of inspectors and administrators in planning and conducting the extension services, are two of the outstanding problems calling for an early solution. New practices introduced by teachers have so disconcerted the inspecting officers that conflicts have arisen and, in their turn, the teachers have often ignored even good suggestions given by the officers, on the ground that they were not included and highlighted in the extension programmes. The teachers' associations have not been fully involved in the extension activities. The practice of a large number of districts to one Extension Centre (as many as eight for the Nagpur Centre), has made the extension activities diffuse and the energies of the Hon. Director and Co-ordinator are often frittered away in rushing from seminar to seminar and school to school, without waiting to see whether the programme has taken root and resulted in actual benefit to schools and teachers. Since extension is considered as activity entrusted mainly to the co-ordinator, the rest of the staff of the college are lethargic in supporting it. The special status of the co-ordinator has sometimes caused envy and dissatisfaction among the staff.

In some instances, the co-ordinator has been inclined to arrogate to himself a much greater status and authority both in the college and the field, than he is entitled to have. The situation would easily shed some of these unhelpful features, if extension activities are considered as a part and parcel of the total training programme to be organized by a college of education. This measure would naturally lead to the participation of every member of the staff in extension activities and remove the root-cause of their present resistance to the Extension Centre. arrangement would make sufficient extension personnel available for organizing intensive extension activities and much greater contribution would be possible towards improvement. The job of the Principal would then be to plan, direct and co-ordinate both pre-service and inservice programmes. For this onerous task, however, he would need assistance from two staff members of the vice-principal's status. Most of our well conceived schemes of educational improvement have failed firstly, for want of enough and stable staff and secondly, for want of a proper distribution of responsibility and credit among the personnel involved in the improvement programmes. If worthwhile in-service programmes are to be conducted through extension activities, both these short-comings will have to be avoided.

The extension activities for secondary teachers have not only remained isolated from the teachers' organisations and the inspectorate but have also ignored the facilities available in universities. Much benefit could be derived by evolving channels of communication and co-operation between the various schemes of in-service education such as Summer Institutes, Units and Bureau in the Education Department which provide training in different instructional activities, and the State Institute of Education which is charged with the task of assisting educational improvement in all sectors of the educational system. With such co-ordination joint programmes could be instituted and may prove of greater efficacy.

6.9. Proposed Roles and Functions of the State Institute of Education in relation to Extension Services.—The role and functions of the State Institute of Education in promoting extension services at the secondary stage, were defined fairly and clearly in the State Level Conferences on Extesnion, held in February 1965 and November 1965. Accordingly, the Institute, which already has an Extension Centre for primary schools might set up a section for assisting with the planning, supervision and co-ordination of all types of extension activities. A State-level Co-ordination Committee for Extension Programmes appointed by Government, would

deal with the academic as well as administrative problems of Extension Centre. The composition of the committee could be as follows:

- (2) Director of the S.I.E. .. Vice-Chairman.
- (3) Deputy Director of Education, i/c of the Member. Administration of Extension Services.
- (4) One Hon. Director of a Secondary Member. Extension Centre.
- (5) One Hon. Director of a Primary Extension Member. Centre.
- (6) One Co-ordinator of a Secondary Extension Member.
- (7) One Co-ordinator of a Primary Extension Member. Centre.
- (8) Professor in-charge of Extension Member-Secretary. Programmes, S.I.E.

The Hon. Directors and Co-ordinators to be appointed on the Committee, should be selected from different Centres, through a scheme of rotation. The meetings of the Co-ordinating Committee may be arranged at different Extension Centres so that the Committee may keep in touch with their actual conditions and observe some of their activities.

The State Institute should undertake to prepare, from time to time, digests of the various publications produced by different Extension Centres and arrange to edit them for use by secondary schools, training institutions and inspectors of primary schools, depending on the nature of the publications. The digests may be priced publications, brought out on a no-profit no-loss basis. Its publication and distribution may be organized through the Bureau of Text-books which is proposed to be established. The Institute may bear only the editorial responsibility. The importance of this activity for the professional improvement of teachers of primary and secondary schools should be recognized by the Government. Since this is a task which requires a competent editor who must also have worked as a Teacher-Educator, a special post should be created in Maharashtra Educational Service, Class-I, on the staff of the Institute. The Institute should prepare literature on Extension (in Marathi), for use not only by colleges of education but also by inspecting officers, and staffs of the "nucleus schools", which would gradually undertake the provision of Extension Services to smaller schools in their surrounding area.

Orientation courses in the objectives, organization, techniques and evaluation of Extension Services should be conducted by the Institute for all personnel engaged in the conduct and follow-up of extension activities. Since Extension Services are to be made a part and parcel of the work of all secondary and primary training institutions, induction courses in Extension should be organized for the Principals of the institutions which would be initiating Extension Programmes. Studies and investigations into the programmes, methods and impact of Extension Services should be undertaken by the Institute. Results of such Research should be made available to the colleges of education, the inspectorate and teachers' organizations.

The Institute should promote programmes of action-research in selected schools by helping teacher-educators to design and supervise the projects. Experimentation for developing effective A. V. aids may be carried out by the Institute with the help of the Extension Services Centres. A project for developing objective criteria for assessing the professional ability and performance of teachers may be undertaken both at the primary and secondary levels, and the investigation should be conducted with the help of the staffs of the colleges of education. In all such tasks, the State Institute should involve a professional organization of teachers and headmasters by inviting their ca-operation in field-work, and also by appointing Consultation Panels from among their members for the various tasks to be performed by the Institute through its Extension Section.

6.10. Primary Extension Services. - Extension Services conducted by the three centres sanctioned by the N.C.E.R.T., are to be viewed more as laboratory projects than normal provision for school improvement and inservice training of teachers at the primary level. The impact of extension activities on the 150 schools and about 600 primary teachers served by the centre would hardly be successful in providing a model for a widespread programme of extension for the 40,000 Primary Schools in the State. For an extensive provision of services for primary school improvement, extension must become an integral part of the total work of primary training institutions. Further extension activities must be supported in an organized manner by inspectors of primary schools and the district and taluka units of primary teachers' associations. Without a comprehensive programme built up through the co-operation of various agencies the extension services for primary schools may lag behind those for secondary schools whose number is much smaller and resources much larger.

In addition to these field services for in-service training, it is essential to provide institutional facilities for full-time and part-time in-service training courses. At least one training institution per district, should be reserved for conducting a continuous programme of improving the professional skills and deepening the subject-knowledge of primary teachers. The staff of these institutions should be well-qualified and have the same status as that of the colleges of education. Besides, they must have undergone a thorough orientation in problems of primary education and primary teacher-training. Considering the subjects in which the primary teachers have been requesting further training, each in-service institution will have to be provided with a staff of ten to twelve educators who specialize in the different subjects and activities which figure in the primary school curriculum. A staff of this size can take care of nearly 300 trainees at a time, studying a variety of subjects, in courses of four weeks' duration. These institutions should be considered as non-vacation departments. They should invariably conduct special orientation and training programmes for headmasters of primary schools, hold seminars and workshops of inspectors of primary schools, keep in close touch with the preservice training programmes and extension activities and supply to the State Institute of Education the findings of the courses conducted throughout the year, in order to assist the Institute to formulate programmes of further improvement of preservice and inservice training courses. Parttime evening courses should be organized by as many secondary and primary training institutions, as possible. Correspondence courses should be conducted by the State Institute of Education, particularly for the inservice training of women teachers and teachers of an advanced age, who would normally find it difficult to attend institutional courses.

6.11. Pre-primary Extension Services and In-service Training.—Extension services may be built into the programmes of pre-primary training institutions just as in the case of primary training institutions. Institutional courses may be organized for the heads of pre-primary schools, during vacations, in four selected training institutions in the four divisions of the State. Since most of the effort in pre-primary teacher education comes from private management, the funds essential for these programmes of teacher-improvement, should be provided by Government. Short-term courses of the duration of two to four weeks should also be organized in selected training institutions during vacations and the financial provision on their account should be admissible for grant-in-aid. Such activities for the in-service education of pre-primary teachers would keep the training institutions in constant touch with their field and enable them to continually improve and modernize their training programmes. Another

measure suggested for further improvement of pre-primary teacher-training, and pre-primary education as a whole, is the creation of a special section for the study and development of pre-primary education in the State Institute of Education. It would be the task of this Section to conduct investigations into the problems of pre-school education and teacher-training, organize training courses for extension workers, assist in revising the curricula for pre-primary schools and teacher-training, and assist in the preparation and publication of educational literature for pre-primary teachers.

The Correspondence Department of the Institute should organize inservice development courses for teachers of rural pre-primary schools to whom institutional training facilities may not be readily available.

6.12. Professional Preparation of College-Teachers.—The idea of providing professional training for college-teachers is neither new nor revolutionary. It was in evidence in the institutions of higher learning in ancient India, in the days of the Gurukula system. In Europe, it has always been at the basis of the system of appointing Fellows and Tutors. The core of this manner of professional preparation consists of apprenticeship by the professors-in-the-making, under the guidance of those who have already attained eminence as professors. The training is informal, unorganized, quite intensive, and is carried out in an atmosphere saturated with scholarship, through day-to-day personal contact of the senior and junior teachers. In recent times, however, the rapid expansion of collegiate education all over the world-particularly in the U.K. and U.S.A.has changed the atmosphere in the universities and has made it extremely difficult to continue the training of the junior teachers through close personal contact with the seniors. The vast growth in the number of teachers has, moreover, brought up new professinoal problems and one of the most important among them, is the need for a formal organization of college teachers as a body of workers with specific preparation for their profession. It is this factor of formal preparation that constitutes the new element in the old and accepted idea of the professional preparation of college teachers.

In the U.K. the question of training the college teachers has been receiving increasing attention in recent years.

In the United States, the idea was seriously taken up towards 1945-46, when the American Council for Higher Education took a definite decision to start courses in the techniques of teaching and other related matters,

for the junior teachers in colleges. In the U.S.S.R., the manner of working for the Ph.D. degree automatically provides pre-service training and conferences, seminars, etc., provide in-service training. The U.S.A. has made a rapid advance, between 1950 and 1961, in the organisation of courses as well as the facilities given to junior collegiate teachers for training themselves. An investigation into the extent and nature of these training courses, was taken up as early as 1953-54, and its results were published Recently, some in the Journal of Higher Education (February 1954). more investigations have been carried out and it has been found that teachers not only from Liberal Arts Colleges and Science faculties but also from Institutes of Engineering, Medicine, Agriculture, Business, etc., have been willingly enrolling for these courses which have been found useful for making instruction less arduous and more effective. In some universities, the candidates for the Ph.D. degree, who propose to teach in colleges, have necessarily to take courses in the techniques of instruction, preparation of curricula, methods of academic evaluation and problems of student-relations. In a large proportion of American universities even candidates for the Master's Degree have to take these courses, if they plan to pursue teaching as a career.

In this country, the idea of providing some kind of professional training to college teachers, at least at the under-graduate level, was put forward in the report of the University Education Commission, in 1948-49. Refresher courses for improving the knowledge of subject-matter and for improving efficiency in imparting instruction have been suggested by the Commission. Very little, however, seems to have been done to give effect to those recommendations, probably because teachers of high academic merit were available even for the junior posts till a few years ago.

In the past, college teachers were considered amply qualified for their job, if they were profound scholars and good research workers. This was really enough in most cases, because profundity of knowledge gave them ease of expression, invested their lectures with conceptual lucidity and generated in their students a respect for scholarship which provided them with the best possible motivation for the acquisition of knowledge. The nature of the student-body also contributed to the success of the teacher. It was easy to teach students who had a natural receptivity to learning and respect for intellectual pursuits. As the student-population was quite small, the libraries and the laboratories of the college could satisfy the needs of the student, even individually, in gaining direct access to knowledge. The teacher had simply to set before them, his own example of academic excellence and devotion to scholarship, and leave the rest

in the hands of the students. This, of course, was the best technique, instruction and maintenance of discipline. It would still be so, if the character of the staffs and students of colleges had not changed and if their objectives and curricula had not been altered. The growing popularity of the view that collegiate education is an instrument of quickly turning the working class into the white-collared class, has been militating against arduous curricula which present a challenge to the intellect of both the teacher and student. The vague yet dominant deside to obtain lucrative employment after finishing college education influences the students to such an extent, that they are not so anxious to acquire knowledge as to get through qualifying examinations.

That college education should lead to a comfortable job or enhancement of social prestige are not wrong desires and we must accept and understand them as a natural product of our times. It is this understanding that is very essential for our college teachers, in addition to their academic competence, in order to help the students to obtain not only what they desire but also what would be desirable for their own wellbeing and that of their nation. The need to handle collegiate instruction as the instrument of national development, presents to the college teacher of today a greater challenge than that faced by the teachers of the past, because it now combines the pursuit of scholarship with the pursuit of national goals. But while a greater challenge has emerged since independence, college teachers who can accept it, have not. On the contrary, expansion of collegiate education has inflated their ranks (especially of junior staffs), with teachers of insufficient academic preparation and national insight. They do not possess the old device of personality-impact', which could have made their work successful. They, therefore, need substitute devices. Additions to their insufficient store of subject-knowledge and socio-economic insights, a grasp of effective teaching-techniques and self-study would be these substitute devices. Though this may not render them fully capable of meeting the educational challenge of the times, they would certainly gain more confidence and feel professionally secure. On this foundation, they may gradually build up their strength. It would be unrealistic to think of providing any preservice training for college teachers. For the new teachers, apprenticeship under the guidance of well-known senior teachers would be a good method of beginning professional orientation. Seminars, conferences, discussions, workshops, and symposia should be the main features of the inservice training programme. Content-courses like the Summer institutes could be organized during the vacations.

In the first two years of college, it is necessary to use instructional methods suitable for the secondary stage. If the secondary teachers' colleges or faculties of education could establish a liaison between themselves and the Arts and Science colleges, arrangements could be made to give the lecturers some orientation in techniques of instruction suitable for the first two college classes. It would be useful, if the Departments or Faculties of Education and the State Institute of Education publish small booklets for college-teachers on modern methods of class-room teaching and dynamics of large and small groups coming together for self-study programmes. Seminars on teaching techniques and social problems related to college-education, may also be held from time to time. Early June and October would be suitable for such Seminars which should precede the commencement of the term.

6.13. In-service Training of Principals of Training Institutions and Headmasters of Secondary and Primary Schools.-In-service training for the heads of secondary schools can best be organized through a co-operative designed by Head-Masters' Associations and Colleges of Education. An excellent example of such co-operation has been set by the St. X'avier's Institute of Education which conducted short in-service courses for head-masters of secondary schools. Pooling together of finances, equipment and personnel has contributed to the successful organization of these courses. This is an example worthy of emulation by all colleges of education and head-masters' associations. Similar programmes can also be undertaken by extension bureaux organized by groups of schools with guidance from the Parishad Education Officer. Gradually, such courses need not remain restricted to the discussion of supervision and management but should develop into active groups of head-masters which would prepare hand-books for assistant teachers. evolve development plans for their own schools and become consultants to new schools, and give suggestions to the Education Department, for new measures directed towards the improvement of standards in schooleducation and teacher education.

The in-service training of the Principals of primary training institutions should form a part of the in-service programmes organized by the State Institute of Education. The Institute has been conducting, since November 1964, divisional conferences of Principals of primary training institutions. Specially prepared working-papers on the present problems and new trends in teacher-education are used in these conferences, as the basis of discussion. After a general discussion is held on the working-papers, the Principals divide themselves into study-groups, examine

a few problems critically and produce group reports. This procedure enables them to analyze problems, weigh them against new trends and old views, and evolve solutions. These specially devised conferences are a step in the direction of providing in-service training to the Principals for giving them fresh view points on teacher-education, their own roles and functions, and the kind of information they must strive to obtain and absorb for revitalizing their own work and the programmes of teacher-education. Intensive workshops of about two weeks' duration, would be of great use to the Principals for performing their duties with greater understanding, and contributing to the development of their institutions.

6.14. In-service Training of Teacher-Educators.—(i) Secondary Level.— The orientation and training of teacher-educators at the secondary level is already being conducted to some extent by agencies like the Central Institute of English at Hyderabad, various Departments of the N.C.E.R.T. which arrange courses for Principals and some categories of teachereducators, organize all India study-groups, conferences and workshops, and particularly through the DEPSE (which is now called the Department of Field Services, NCERT and has extended its scope beyond secondary schoolextension). The Summer Institutes sponsored by the U.G.C., are a good instance of the vacation programmes of in-service training. Conferences called by the National Association of Teacher Educators also constitute another avenue of further professional growth. These initial measures have a great potentiality for leading teacher-educators of secondary training colleges towards locating the problems involved in their professional life, particularly in the rapidly changing objectives and manner of organizing the training of secondary teachers. A keener consciousness of their professional obligations and the readjustment needed in their professional skills and attitudes, has also been slowly emerging as a result of these new programmes. An increase in the number of teacher-educators striving for high qualifications through research activities and institutional courses is an indication of a new awakening to the need for further professional growth.

The variety and frequency of the in-service programmes conducted in the past five years have created a high tempo of professional activities which not only must continue but greatly increase. The Summer Institutes, conferences, workshops and study-groups could increase their scope and tackle the questions of in-service training for separate groups of teacher-educators according to their subject-specialization. The new atmosphere of interest created in the secondary training colleges by the annual conferences of their principals, called by the State Institute of Education should be helped to grow by a programme of annual workshops of one week's duration for teacher-educators of the different subjects in the training curriculum and encouragement to the establishment of subjectwise associations of the teacher-educators in the State. Problem-oriented seminars of Principals for discussing the various aspects of the training programme should also be arranged.

- (ii) Primary Level.—In addition to the annual conferences of Principals and the scheme of four weeks' orientation courses already implemented by the Institute, a variety of professional activities like workshops and study groups should be organized divisionwise, for different categories of teacher-educators. In-service training of three months in every five years should be made obligatory for all teacher-educators. The beginning made by the Principals' conferences should be strengthened by one-week seminars and two-week workshops of Principals to study the problems of primary teacher-education. The courses at present conducted by the State Institute of English should be supplemented by short-term refresher courses for the specially trained teacher-educators of English. A similar programme of intensive preliminary training and follow-up courses should be formulated by the Institute of Science Education for teacher-educators of Science and Mathematics.
- (iii) Pre-primary Level.—For teacher-educators of pre-primary training colleges, there is hardly any programme of orientation and in-service training. The concepts and practices of pre-primary education, roles, functions of pre-primary teachers in urban and rural areas, the methods of pre-primary teacher-education which are concerned more with child-care and "child-education", as distinguished from formal school-instruction are matters which cannot be fully understood without a specific orientation. Orientation and in-service training courses for the pre-primary teacher-educators should be designed and conducted jointly by the newly formed Association of Pre-Primary Training Institutions and the State Institute of Education. The financial provisions for these courses should be made on the same lines as those for the courses for teacher-educators of primary training colleges.
- 6.15. In-service Training of Educational Inspectors and Administrators.—The inclusion of optional papers on educational administration in the B.Ed. and M.Ed. degree courses has been helpful in high-lighting the importance of an academic study of the principles and the system of educational administration. But those who select these papers are not

necessarily engaged in administrative tasks nor are selections made from among them for recruitment or promotion to the higher administrative and supervisory posts in the Department. A large number of educational inspectors of secondary and primary schools in the State, carry out their duties on the basis of traditional view-points on administration and inspection. They are, of course, familiar with the dictum that "The Educational Inspector is the philosopher and guide" of the teachers. However, in the normal course of their work they have very little opportunities to develop any philosophy, or to keep their competence at such would entitle them to offer substantial guidance. To be a friend of the teachers and schools is also difficult for the inspector because his traditional duties are to find out deficiencies and suggest penal measures for removing them. This lack of philosophy, guidance and friendliness does not originate from the personality of the inspector who is generally a normal individual. The administrative frame-work in which he functions usually prevents him from getting close to the school and discard his "administrative distance". Though it is very necessary to reorganize the goals and structure of educational administration and supervision, it would take a long time to effect a change through formal measures. But if a large number of officers trained in modern techniques of administration and supervision are put into the system, it will quickly change from within. Extensive arrangements for the pre-service and inservice professional training of educational administrators and supervisors are, therefore, essential. The organization of in-service training programmes can be organized immediately and a variety of ways will have to be adopted for providing frequent opportunities to the inspecting staffs to study the new trends in inspection and supervision, educational theory and practice, techniques of teaching, problems of financing and managing educational institutions, methods of promoting the professional efficiency and satisfaction of teachers and obtaining the co-operation of different types of agencies in school improvement.

A good beginning has recently been made to provide short induction courses and in-service training courses for administrators and supervisors in the newly established State Institute of Education. Though, in the initial stages, the Institute is to emphasize the training of the inspectors of primary schools, the programme should spread itself out gradually to include the training of most of the categories of educational administrators and inspectors.

6.16. Training Material.—The question of preparing suitable training material in the regional languages, for the training of teacher-educators,

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- educational administrators and supervisors will have to be taken up urgently. A co-operative project for this purpose should be undertaken by the State Institute of Education, by involving in it outstanding educationists, administrators and teacher-educators. The material should be adopted to the needs of the different categories of their readers.
- 6.17. Adjustment of Deputation Procedures of State Government.-It has been a common experience in the past that teacher-educators from Government institutions (and even from some private institutions) and administrators and supervisors are not easily allowed to participate in the programmes intended for their professional improvement. At the State level, the tradition of discouraging Government officers from participation in even those seminars and conferences which are closely related to their work, has been quite firmly established under the British regime and refuses to be altered even in independent India. It would be very necessary to realize that participation by Government officers in programmes of professional improvement should be looked upon as an important official duty and that teacher-educators and administrators should be encouraged to improve their job performance by attending courses, seminars and conferences. The attendance of the officers at the training courses should be considered as duty and should invariably carry the benefit of their normal salary, allowances, etc. Unless the importance of further training for educational administrators and teacher-educators is thus encouraged it would be extremely difficult to prepare them to bring about the desired improvement in education.
- 6.18. Importance of In-service Training—(i) Basis of Course-content.—In-service training of teachers should be considered as more important than their initial training. During initial training, they may not be able to discover their own weaknesses, strong points, special interests, or the extent of their ability to achieve further professional development. These factors are gradually discovered by a teacher while he is working. Inservice training programmes should be based on the training-needs discovered by teachers and should not offer inflexible and stereotyped courses.
- (ii) Contribution of Teachers to Self-development.—(a) Individual teachers as well as the professional organizations of teachers should study the requirements for self-development as members of the most important profession in the world. Their findings should be communicated to the State Institute of Education in order to enable it to devise appropriate programmes and take suitable steps for organizing in-service training on the basis of the "felt-needs" of the teachers.

- (b) In the in-service activities conducted so far, the teachers who take their benefit have never been expected to incur any expenditure. This situation needs to be changed gradually. No charitable enterprise has ever been able to increase the initiative, self-respect, and moral of the receipient of charity. The participating teachers may, therefore, be required to bear some expenditure on travel or training material, to the minimum extent fixed for the purpose. It will soon be obligatory for every teacher to undergo about three months' in-service training in the course of every five years of service. The selection of teachers for higher grades, merit awards, special facilities and incentives may be made on the interest and performance exhibited by them in in-service training. Adoption of the practice of teacher-rating and certification of teachers for continuing in the profession would surely constitute a strong motivation for professional improvement than free educational service or financial awards for which demands would always be endless and meaningless too. But apart from all these considerations, the satisfaction which the teacher would receive from a better-performed job would be a high reward for in-service training. No teacher should mind spending a little for the emotional and intellectual well-being which such a professional satisfaction promotes.
- (iii) Role of the Inspecting Officers.—The inspecting officers have always been looked upon as the most extensive and competent agency for the "on-the-job", training of teachers. This function is admirably performed by the H. M. Is. in England who study the problems and needs of teachers and offer help to make the teachers happy with their school-tasks. The panels of consultants which visit the schools once in seven years have been acclaimed by the teachers in the U.S.A. as their most welcome visitors. If needed, they visit the teachers oftener.

In comparison, the role played by our inspectorate presents a rather dismal picture. They are not free to devote their time so much to academic guidance as to administrative control. They have neither the time nor the library-facilities to fresh up their knowledge of education. They have few chances to meet educationists, to attend stimulating conferences or to express their suggestions for improving the schools and the teachers. They are there to see that the schools maintain a status-quo, that teachers are respectful on the inspection day and the pupils present an orderly appearance. They have very little to give to the schools and while some escape the responsibility of giving guidance by adopting the strategy of calling all teachers efficient and all schools good, others offer a severe critisism to indicate that since no efforts would improve such a bad work, it would be pointless to make them. Of course, there are

exceptions. But unless they became the rule, no help can be expected from the inspectorate in conducting a continuous on-the-job training of teachers.

At the primary stage, conditions are particularly distressing. The load of work of the Extension Officers in excessive. Their numbers have not increased in proportion to the expansion of school-facilities. The number of graduate A.D.E.Is., has dwindled very rapidly and nearly 60 per cent. of the inspecting staff consists of primary-trained inspectors whose academic qualification is the P.S.C. They find it difficult to advise primary teachers whose basic qualification has now risen to the S.S.C. The training institutions have no programmes for interesting the inspectors in the training programmes. There is an utter lack of dialogue between the inspectors and teacher-educators.

This situation needs to be mended, if, after preparing teachers in well-designed pre-service programmes, their rapid deterioration is not to be witnessed soon. The qualifications of the inspectors, particularly of primary schools, should be the same as those of primary teacher-educators. If large classes are undesirable, by the same token, large areas of inspection too, are equally undesirable. For the on-the-job improvement of primary teachers, their inspectorate must be upgraded, strengthened in numbers and improved in morale.

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सन्धर्मन जयत

CHAPTER SEVEN

TEACHER PROVISION IN MAHARASHTRA: QUANTITY AND QUALITY

- The Demands of "Quantity".- The problem of recruitment and training of suitable teachers are interlinked with the problems of educational expansion. When expansion proceeds apace, considerations of quality have to be subordinated to the demands of quantity. Overflowing class-rooms cannot be left without a teacher, till some one really suitable is found. It takes nearly twelve years to produce a matriculate teacher while enrolments can double themselves within a span of five years. Under the impact of the "explosion of rising expectations", the countryside gets filled with new schools and class after class gets added to the old schools. In such a situation, there is no option but to recruit teachers from among whatever kind of persons are available in the educational marketplace. The recruitment criteria evolved in the days of a steady and even educational growth, appear too ambitious when expansion requires the immediate appointment of a vast number teachers. "Some kind of a teacher is better than no teacher and some kind of education is better than no education" becomes the major consideration. It is unavoidable, anywhere, in the first flush of expansion Maharashtra has been no exception to the rule.
- 7.2. Growth of Enrolments in the State.—The growth of school facilities in Maharashtra during the past ten years has been most remarkable. The State now has nearly 4,000 secondary schools, 40,000 primary schools and about 500 pre-primary schools. Schooling begins at the age of 6, which has been the minimum age specified for school-entrance under the laws of compulsion. The enrolment in the age-group of 6 to 10, i.e., in Standards I to IV, stands at 41,03,062, which means almost 90 per cent. of the children in that age-group are in school. In Standards V to VII, 12,97,135 children, i.e., 43 per cent. of the age-group 11 to 13, have been enrolled. In the age-group of 14 to 17, 21.8 per cent. children are enrolled in Standards VIII to XI, the total enrolment being 7,72,067. In 1955-56, only 10.4 per cent. children of this age-group were found in Standards VIII-XI. Within a span of less than ten years, the enrolment at the secondary stage has more than doubled.

The rising enrolments have created many a problem in the recruitment and training of teachers. The secondary stage has been the main sufferer

for want of enough graduates to keep it supplied with suitable teachers. The primary stage, which had begun to raise the recruitment qualifications of its teachers, suffered a temporary set-back. However, the doubling of the enrolments at the secondary stage and the consequent doubling of the production of S.S.C.s now augurs well for a fresh move towards giving it better teachers.

7.3. Teacher Resources.—Before 1938, it was customary to appoint P.S.C. holders to teach in primary schools. The growing concern for improving the quality of primary education prompted the More Committee (1938), to recommend that a three-year post P.S.C. course in general education should be provided before admitting candidates to a two-year training course. The Lokshala course (matriculation without English), thus come into existence. It did not become popular and between 1939 and 1954, there was heavy recruitment of P.S.C. holders. But the Panandikar Committee (1954), found that the training course was far above the heads of these candidates and pointed out that "the consensus of opinion was that P.S.C. is too low a qualification for admission training institutions, however high a student may secure in the same". The recruitment of S.S.C. holders, therefore, began to increase in 1954. However, the subsequent waves of expansion again increased the recruitment of P.S.C. passed candidates. During the last ten years, more S.S.C.s have become available for recruitment in rural areas and this has gradually resulted into discarding the old compromise which advocated the recruitment of P.S.C. holders, firstly on the grounds of a shortage of S.S.C. holders and secondly on the grounds of providing encouragement for the education of village children upto the P.S.C. level, through providing for them employment opportunities as primary teachers. Now that it has become necessary to provide employment opportunities to the S.S.C. holders, apart from the considerations of quality in primary education, a steady trend is noticed towards increasing the recruitment of S.S.C. holders. Only 2,985 under-graduates had got recruited as primary teachers in 1957-58, but their number rose to 6,110 in 1963-64.

The difficulty of finding suitably qualified teachers for primary schools is obviously decreasing with the increase in the enrolment at the secondary level.

Difficulties, however, still exist in recruiting suitable teachers for secondary schools. At the secondary level, it is not only the general output of graduates that can provide a way out of the difficulties. Their subjects of specialization must meet the requirements of the secondary school

curriculum. The shortage of teachers for Geography, General Science, English and Mathematics is very acute though the enrolment at collegiate level has increased in the past few years. In 1964-65, the number of students working for the B.A. degree stood at 17,135 and that for B.Sc. degree at 10,354. This position reveals that though graduates on the Arts side may become available in a fairly sufficient number, the output of graduates in Science is not commensurate with the demand for Science teachers. The proportion of students enrolled at the collegiate stage in Maharashtra was 28 to 10,000 of total population, in 1961. Maharashtra then ranked fourth in the country in respect of the enrolment percentages at the collegiate stage. Though the latest comparative figures are not available, there is no reason to expect much change in the position of 1961, and surely not any deterioration. The situation as a whole, is not unsatisfactory. According to the all-India figures for 1961, Maharashtra ranked seventh in respect of the percentage of Science students at the degree level to the total number of collegiate students. At the post-graduate level in Science, its rank was eighth. It is obvious that the output of science graduates will have to be increased in order to draw enough science teachers from among them. At the post-graduate stage, the output of persons qualified to occupy the posts of lecturers and professors has not adequately increased. The percentage of passes at the post-graduate level is not high enough, probably indicating indifferent admissions to the post-graduate courses. On the basis of the pass-percentage in the post-graduate examinations, the rank of Maharashtra in 1961, was eleventh in the country. During 1965-66, only 3,315 students were found studying in the M.A. courses and 1,616 in the M.Sc. courses. The students in research courses (including the doctorate), in all the faculties, numbered only 614 upto July 1965. It does not take long to see that the pace of preparing qualified teachers for colleges needs to be stepped up, if the quality of the graduates to be recruited as secondary teachers or teacher-educators in primary training colleges, is to be satisfactory.

- 7.4. Trends in Recruitment—(i) Primary Stage.—At the primary stage there has been a tremendous increase in the number of teachers. It is noticeable in the recruitment of women teachers, S.S.C. passed teachers, and even graduates:—
 - (a) Proportion of Men and Women Teachers.—The total number of primary teachers was 90,738 in 1955-56. It rose to 1,37,166 in 1963-64. The rate of increase is about 5,804 per year. The total increase in numbers is 46,428. During the same period, the number of women

teachers has risen from 17,558 to 32,982. The rate of increase of women teachers is 1,928 per year. The total increase in their number is 15,424. The percentage of women teachers to the total was 19·35 in 1955-56. It rose to 24·05 in 1963-64. It will thus be seen that though the increase in the number of women teachers at the primary level has nearly doubled in ten years, the pace of expansion has kept their total percentage quite low. From the point of view of bringing more girls to schools, it is most inadequate. The target of recruiting 30 per cent. women teachers fixed for 1965-66, has not yet been possible of achievement.

(b) Proportion of Matriculate Teachers.—In 1955-56, the number of matriculate primary teachers was 16,157. It rose to 50,058 in 1963-64, The rate of growth per year is 4,238 and the increase in absolute numbers is 33,901. Nearly 73 per cent. of the increase in the total number of teachers, in eight years, is among the matriculates. The proportion of matriculate teachers has increased from 17.8 per cent, in 1955-56 to 36.5 per cent. in 1963-64. This growth, however, is not fast enough and unless recruitment of new teachers is confined to matriculates in order to make up for the past heavy recruitment of middle passed teachers, the rate of growth among matriculate teachers will not reach the desired proportion. The proportion of non-matric teachers will henceforth decrease automatically on account of the retirement of P.S.C. teachers recruited in the '30s. It should be possible to fill in all such vacancies by S.S.C. passed teachers. Even for the recruitment of women teachers and teachers for tribal areas, it would be more desirable to recruit S.S.C. holders and give them special allowances as incentives, than to recruit P.S.C. holders and endanger the standard of education for these classes which are already underprivileged. In 1957-58, the recruitment of S.S.C. passed teachers was nearly 2½ times that of P.S.C.s. However, in the next year, the number of S.S.C. candidates suddenly decreased and that of P.S.C. increased, almost to a ratio of 2:3. From 1959-60 to 1962-63, the trend in the annual recruitment of S.S.C. holders has remained fairly stable around the number 4,000. In respect of P.S.Cs., it has decreased from around 2,550 to 1,077 within the same period. However, in 1963-64, there was an addition of more than 4,00 P.S.C. holders to the ranks of primary teachers, bringing up their number to 5,457. In the same year the number of S.S.Cs. has risen to 6,110, which is an increase of a little less than 2,000 over the previous year's number which was 4,267. It is probably the demands of expansion that have caused this sudden recruitment of P.S.C. passed teachers.

From the point of view of educational standards, this has undoubtedly been a set-back. If educational considerations are to prevail and if a proper advantage of it is to be derived from the increase in the output of S.S.Cs. for guarding the quality of primary education, such imbalances in recruitment policies will have to be controlled without delay.

The question of recruiting only S.S.C. holders to work as primary teachers would find an answer fairly early, if the present rate of growth in the enrolment at the secondary stage continues to be maintained. Since 1958-59, i.e., in a span of six years, the enrolment in Standards VIII to XI has more than doubled. The total enrolment in these classes was 3,96,817 in 1958-59. It has risen to 7,72,067 in 1963-64. The proportion of girls in the total enrolment has also increased rapidly. It was 52.8 per cent. in 1958-59 and rose to 58.4 per cent. in 1963-64. The actual enrolment of girls was 89,937 in 1958-59 and 1,87,551 in 1963-64. With proper incentives, it should be possible to recruit a large number of S.S.C. passed girls to work as primary teachers.

- (c) Proportion of Graduate Teachers.—The number of graduate teachers was 1,724 (785 men and 989 women) in 1963-64. The percentage of graduates to the total number of primary teachers was 1·2 in 1955-56 and has become 1·3 in 1963-64. Most of the graduate teachers are found working in large cities like Poona and Bombay, particularly Bombay.
- (ii) Secondary Stage-(a) The Proportion of Graduates to Undergraduates.—The total number of teachers at the secondary stage has increased from 18,195 in 1955-56 to 45,771 in 1963-64. The number of graduate teachers in 1955-56 was 9,131, i.e., 50.2 per cent. of the total. This number increased to 21,565 in 1963-64 but showed a percentage of 47.1 to the total. The recruitment rate of graduate teachers has obviously been wable to keep pace with the rapid rise in the number of secondary schools. The undesirability of this situation becomes noticeable when it is remembered that of the children enrolled in secondary schools, 65 per cent, children belong to Classes VIII to XI and only 35 per cent, to the lower secondary (or upper primary stage). The proportion of graduates and under-graduates should be in keeping with this picture of enrolment. Besides, the teacher-pupil ratio in the secondary classes is about 1:21 and at the lower stage it is 1:35. This means that if three teachers are recruited for the secondary stage, only one teacher has to be recruited for the lower stage. The percentage of graduate teachers should, therefore, be 75 and that of under-graduates only 25. The actual position

shows that the percentage of graduate teachers has begun to drop steadily from the year 1958-59, while that of S.S.C. passed teachers and non-matriculates has been steadily rising. Other telling figures are the numbers of graduate and under-graduate teachers in 1955-56, 1958-59 and 1963-64. In 1955-56, the number of graduate teachers was 9,131 and of undergraduate teachers, 7,471. The graduates were in a majority. In 1958-59, the proportion became almost equal, the number of graduate teachers being 12,643 and that of under-graduates 12,298. In 1963-64, the same equal proportion is maintained, the number of graduate teachers being 21,656 and that of under-graduate teachers being 21,279. It would be seen that the lead which the graduates lost in 1958-59, has never been regained. Further, whereas the number of graduate teachers has only doubled in eight years, the number of under-graduate teachers has actually trebled.

- (b) Proportion of S.S.C. Holders and Non-Matrics.—The percentage of matriculates which was 41·7 in 1957-58, steadily rose to 48·8 in 1958-59. Since then, it has maintained almost an even growth in numbers but has shown a slight fall in the percentage figures. In 1963-64, it was 46·5 per cent. as against the percentage of 47·1 for graduate teachers in the same year. The proportion of non-matric teachers at the secondary stage has also been increasing. In 1955-56, not a single non-matric teacher was employed at the secondary stage. The infiltration suddenly rose to 6·8 per cent. in 1958-59. It has fortunately been decreasing and has come to 3·5 per cent. in 1963-64. However, it is obvious that non-matric teachers must be weeded out from the ranks of secondary teachers.
- 7.5. Professional Preparation.—The extent of professional preparation of teachers employed at different stages of education, will be clear from the following table:—

Number of Teachers by Training

	Q .4	Trained		Un-	trained	Total	
	Category –	Men	Women	Men	Women	Men	Women
1.	Higher Secondary	2,360	560	724	120	3,084	680
2.	High Schools	25,404	10,621	10,403	2,342	35,807	12,963
3.	Middle Schools	836	421	542	89	1,378	510
4.	Secondary Pre-Primary (Esti.)	40	800	50	450	90	1,250

Of the 35,807 men teachers and 12,963 women teachers employed in high schools, as many as 25,404 and 10,621, respectively, are trained. The proportion of untrained men teachers is much higher than that of women. In the middle school classes attached to secondary schools, it is common to employ under-graduate teachers with S.T.C., T.D., Dip. T. qualifications. At this level also it is found that the employment of untrained men teachers is much larger than that of women teachers. Out of the 1,378 men teachers working at this level, only 836 are trained but from among 510 women teachers as many as 421 have received training, leaving a backlog of only 89. At the pre-primary stage, there are very few men teachers. Because of the existence of recognized as well as unrecognized institutions side by side, it is difficult to note how many trained and untrained teachers are actually in employment. However, the roughly estimated number shows that the percentage of trained teachers at the pre-primary level is quite high. Out of the total of 1,250 teachers, nearly 840 are taken as having received training:-

(i) The Primary Stage.—At the primary stage the details of trained and untrained teachers are as follows:—

Teachers in Elementary Schools

(By Training)

Year			Total	Trained	Percentage Trained	
1955-56	••		90,738	48,406	53·3	
1956-57			96,017	53,560	55.8	
1957 58			1,00,394	59,112	58 · 8	
1958-59			1,04,401	63,141	60 · 5	
1959-60			1,07,755	66,637	61.9	
1960-61		• •	1,14,610	71,815	62.7	
1961-62	••	••	1,20,034	77,461	64.5	
1962-63		••	1,25,473	87,172	69 · 5	
1963-64	••		1,37,166	1,00,447	73 · 2	

As indicated by the figures above, there has been a very rapid increase in the number of trained teachers at the primary level in the last eight years. Their percentage has risen from 53·3 in 1955-56 to 73·2 in 1963-64. The increase has been particularly rapid since 1961-62. The number of primary training institutions grew from 78 in 1955-56 to 132 in 1961-62 and this growth in the training facilities is the chief factor in causing a swift rise in the number of trained teachers. It rose from 48,406 in 1955-56 to 1,00,447 in 1963-64, showing more than a doubling of numbers within a span of eight years.

Secondly, the liberal results of the primary training examinations appear to have contributed substantially towards increasing the ranks of trained teachers. Thirdly, the recruitment of S.S.C. teachers enhanced the capability of the student-teachers in primary training institutions to carry out the training programmes and this factor undoubtedly accounts for the high percentage of passes. It is interesting to study some of the special features revealed in the results of primary training examinations for 1963-64, given in the table below:—

Output of Primary Teachers (1963-1964)

			No. appeared			No. passed		
		-	Men	Women	Total	Men	Women	Total
Junior S.S.C.	P.T.C.		2,618	929	3,547	2,431	904	3,335
Non-S.S.C.			7,682	2,390	10,072	5,542	1,578	7,120
المستوارة والمستوارة و	Total		10,300	3,319	13,619	7,973	2,482	10,455
Senior P.T.C.			1,212	212	1,424	865	156	1,021
	Grand Total		11,512	3,531	15,043	8,838	2,638	11,476

In the Junior P.T.C. Examination, the percentage of passes for men candidates is 90, while for women candidates, it is 97. For the non-S.S.C.

candidates appearing for the same examination, the percentage of passes is 55 for men and 66 for women teachers. Two conclusions are apparent from these percentages: (a) S.S.C. recruits fare much better in the Junior P.T.C. than the P.S.C. recruits and there is very little wastage of the expenditure on training facilities. In the case of the P.S.C. candidates, the training facilities were wasted on 34 per cent. women and 45 per cent. men. The performance of both S.S.C. passed and P.S.C. passed women candidates was better than that of men.

In the Senior P.T.C. Examination, the percentages of passes for men as well as women are 75. But the number of women at this stage is very small, almost 1/6 of the number of men candidates. Of the 11,476 teachers who appeared for their training certificate examination in 1963-64, 4,356 are S.S.C. holders. Their proportion to the total is roughly 1/3.

(ii) Secondary Stage.—In 1965-66, there was a backlog of 7,000 untrained secondary teachers. It was estimated that in order to provide for the needs of expansion in secondary education there would have to be an additional enrolment of 3,000 teachers per year in the secondary training colleges. The existing provision of about 1,600 to 1,700 seats required to be increased in order to bring the total output of secondary teachers to 3,000 per year. An attempt in this direction has already been made by starting three Government colleges and three private colleges for secondary teachers, during 1965-66. The facilities for training have thus increased considerably, by raising the number of training colleges from 21 in 1964-65 to 27 in 1965-66. Even accepting the conservative tradition of restricting the intake of each college to 100 students only, the six new colleges should raise the output of trained teachers to 2,200. It has, however, been found that all the six institutions combined, have managed to add only about 300 more places. Apparently, therefore, the answer to the problem of increasing the number of trained secondary teachers does not lie simply in increasing the number of institutions. It must be sought elsewhere, probably by investigating and removing the causes for the disinclination of graduates to enter the teaching profession and training colleges. The small intake of candidates by the secondary training colleges has made the programme of secondary teacher-education an expensive proposition because even with considerable investment in buildings, equipment and staffing, the output of trained teachers is very limited. From the table given below, the general trends and comparative position regarding the per capita expenditure on teacher training from 1955-56 to 1963-64, will be apparent and the cost of secondary training will be highlighted:

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Per Capita Expenditure on Teacher Education

Primary Teachers

Year		ar	Number of Institutions		Enrolment	Cost per pupil to Government	Total	
						Rs.	Rs.	
1955-56		. •		78	11,218	211	267	
1956-57				81	10,892	187	233	
1957-58		• •		87	10,922	202	262	
1958-59			.,	93	11,601	201	266	
1959-60	• •		£	113	13,847	199	270	
1960-61	• •	• •	ON.	127	16,547	224	291	
1961-62		••	19	132	18,110	201	269	
1902-63		••		137	19,431	194	261	
1963-64	• •		, A	137	19,259	213	280	
				ndary Tead Non-Basic)				
1955-56			4	त्यमेश्च नय	955	179	505	
1956-57	• •	* *		9	1,006	278	603	
1957-58		• •		9	1,190	267	560	
1958-59	• •	• •		9	1,984	290	731	
1959-60				11	1,099	308	825	
960-61		••	• •	13	1,549	345	690	
961-62		••		16	1,824	226	642	
962-63		••		17	1,988	255	662	
963-64	• •		• •	17	2,073	259	646	

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Secondary Teachers
(Basic)

	Ye	ar		imber of titutions	Cost per pupil to Government	Total	
						Rs.	Rs.
1955-56		••		2	70	1,147	1,349
1956-57				3	102	836	1,110
1957-58			• •	3	91	1,057	1,344
1958-59	••	••		3	89	1,266	1,492
1959-60	••	• •		3	90	1,231	1,414
1960-61	••		5	3	114	1,044	1,198
1961-62		• •		3	106	916	1,098
1962-63	• •		@	3	111	1,104	1,353
1963-64			9	3	99	1,230	1,400

With the addition of seven more secondary training colleges with inadequate intake capacity, between 1963-64 and 1965-66, it can be logically assumed that the per capita expenditure must have increased further during the last two years. An interesting feature of this expenditure pattern is that whereas the per capita expenditure for ordinary secondary teacher training is more than double of that for primary teacher training, the expenditure for basic secondary training is nearly 2½ times more than that for ordinary secondary training. The noticeable disparity between the per capita expenditure of Rs. 280 for primary training, Rs. 646 for ordinary secondary training and Rs. 1,400 for basic secondary training, needs to be analysed and evaluated critically in the interest of balanced provision at all levels.

7.6. Two Important Factors of Quality: (i) Proportion of Teacher costs to non-teacher costs at the Primary Stage.—Speaking of standards of education, during a period of expansion, the proportion of expenditure on teacher costs and non-teacher costs at the primary stage assumes considerable significance. The normal proportion of teacher costs to non-teacher costs is 70: 30, in the total direct expenditure on primary education. The non-teacher costs represent expenditure on equipment and similar material facilities essential for satisfactory instruction. In Maharashtra, the non-

teacher costs have gradually declined. The proportion of teacher costs to non-teacher costs was about 75: 25 in 1955-56. It became about 91: 9 in 1963-64. These figures clearly show that the demands of expansion, have been met mainly through the appointments of teachers and the provision of equipment, physical facilities and ancillary services, has been neglected. Some of the increase in the teacher costs is no doubt due to the increase in the average annual salary of the primary teacher from Rs. 879 in 1955-56 to Rs. 1,329 in 1963-64. Still, it is obvious that the provision for non-teacher items of education has been as good as held up or has made a sluggish progress. In the interest of quality, efforts need to be made at least to retain the proportion which existed in 1955-56. Even the best of teachers would be partially ineffective in the absence of simple tools of instruction.

(ii) Expenditure on Direction and Inspection.-In order to ensure a constantly good standard of work from trained teachers, it is necessary to make arrangements for giving them frequent guidance, encouragement, orientation to new techniques. Besides, their work has to be evaluated from time to time. This task is expected to be carried out through frequent and efficient inspection and supervision. For this purpose the number of inspecting officers has to be adequate enough for each inspector to reach at least 200 to 300 teachers about thrice in a year. The qualifications of the inspecting officers have to be higher than those of the teachers, and these have to be reflected in their salary scales as well. An effective inspectorate which can command the respect of the schools and the community must be characterized by three important qualities: (a) adequacy of school contact, (b) adequacy of qualifications for their tasks, and (c) adequacy of status as reflected not only in their qualifications and salaries but also in the facilities available to them for the efficient fulfilment of their functions. The swift pace of expansion, however, has hit the extent and quality of the inspectorate the hardest.

In most countries of the world, the minimum expenditure on the inspection and direction of education is around 5 per cent. of the total educational expenditure. In Maharashtra, it was 1·3 per cent. in 1961. It has dwindled down to less than 1 per cent. in 1965-66. The most disturbing aspect of the situation is that the proportion of graduate inspectors to under-graduates which was traditionally fixed as 65: 35, is now reversed. The percentage of under-graduate inspectors is now around 65. In such conditions, no amount of modern training given in teachers' colleges can survive for long. Even if a large programme of

in-service training is provided, the task of continuing the on-the job training would be beyond the capacities of primary-trained inspectors, who have had no chance themselves to revise what they must have learnt 30-35 years ago. In a developing country, where the basic qualifications of teachers are low, it is essential to provide inspectors and supervisors of a high quality so that their efforts might gradually make up for the basic deficiencies of the teachers. The inspectorate is a small but the most important sector in the educational system. The expenditure incurred on raising its quality and quantity has a value many times greater than that of making a vast provision for pre-service and institutional in-service training facilities. A comparative study of the expenditure incurred by the different States on direction and inspection shows that Maharashtra has ranked 13th among 15 States. (1961 figures). Its rank has probably gone down in recent years. The quality of school-education depends on many variables, though the quality of the teacher is a major one among them. But to maintain the quality of the teacher, the quality of inspection and supervision has to be ensured.

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PART-III

NEW DIRECTIONS

Our findings and recommendations are presented in this Part. The findings are of two types: (a) Practical suggestions culled from recent books and investigational documents on teacher-education in India and elsewhere, which we scrutinised during deliberations; (b) the findings and conclusions arrived at, during the course of our critical study of the problems of teacher-education in Maharashtra. While Chapter Eight highlights the useful suggestions culled from books and studies, Chapter Nine presents our composite findings and recommendations arranged according to the variables which we have indicated in Chapter One. Chapter Ten gives the list of recommendations.

CHAPTER EIGHT

NEW CONCEPTS AND PRACTICES IN TEACHER EDUCATION

8.1. Changing Terminology in Education.—In recent years, many terms related to school-education and the professional preparation of teachers have been replaced by new ones in order to appropriately convey the change of viewpoints on objectives, functions and practices. The concept of the teacher as a benevolent despot who fills childrens' minds with the values and information considered important by adults, and shapes their "personality" through the impact personality, has undergone a change. Now he is an "educator" who keeps his personality in the background in order to help the pupils to be self-directing individuals. He prepares them for going a series of educative experiences and assists in investing their usual childhood experiences with educational meaning. "Schooling", therefore, is a "process of education". It is a "continuum of guided experiences". For guiding the pupil through the process of discovering, analyzing and synthesizing educative experiences, the teacher's professional equipment has to be of a high order extending much beyond the technical skills of teaching a subject in a class-room. "Teacher Training" a term that refers only to a drilling in the skills of class-room instruction, is now replaced by "teacher-education", which implies the application to the "student-teacher", of the same "process of education", as he would be applying to his pupils later on. He is no longer a "trainee", expected to go through a constantly revolving mill of practice-lessons but a self-directing, investigating, professionally motivated, alert "student-teacher", with as much right to develop his individuality, as his future pupils. He, therefore, goes through all the experiences essential to conduct "the process of education" for his future pupils. He is, thus, prepared for his profession not in a "training college", but in a "college of education". The opportunity for the discovery and co-ordination of his professiona! experiences has to be provided not in the artificial atmosphere of a demonstration/practising/laboratory school but in ordinary schools which give a true picture of the type of problems which the teacher would be facing in his day-to-day work, with ordinary pupils. Such schools which participate in the programmes of the College of Education "Co-operating Schools".

In pedagogical theory, "principles of education", have now become foundations of education". Instead of the omnibus term "refresher

courses", more specific and meaningful terms like orientation, induction, in-service education, extension-education, seminar, workshop, etc. have appeared on the scene. "Aims of education" have been replaced by "objectives of education", which do not have the inflexibility of "aims". This change in terminology reflects the deeper thought which is being given by educationists to the programmes of school-education and teacher-education. It also denotes the higher status that is given to the teaching profession, particularly by the removal of word "training" and its replacement by "education".

- An Integrated View of Teacher Education.—In planning for effective teacher-education, an integrated view has to be taken of all its stages and branches and relate it to two new dimensions: vertical integration of teacher-education from the pre-school to the university stage and the education of all kinds of teachers throughout life, should consitute the first dimension; the second dimension consists of horizontal concept of teacher-education whereby all institutions, social groups concerned with the effectiveness of education link together their efforts for the professional education and development of teachers. It is essential to insist that teachers from colleges should assist secondary and primary school teachers to improve their attainments. Among the school-teachers, there should be an understanding of the problems of collegiate education, just as there should be an understanding of the problems of school education among the collegiate teachers. Without such mutual communication between all the levels of instruction, standards will not improve particularly in a developing country like ours.
- 8.3. Objectives of Teacher Education.—The objectives of teacher-education have to be harmonized with the changing objectives of institutional education. Schools and Colleges which primarily used to be viewed as a repositary of knowledge dedicated to maintaining a cultural status-quo, are now expected to be instruments of social change. They have to extend their influence wider to include in its scope not only students but the community as well. The roles and functions of the teacher and institutions of teacher-education must be evolved from this new viewpoint. The curricula for teacher-education should be designed to observe these changing objectives.

The functions of the teacher-education programme should be: (1) to enable the student-teacher to gain insights about himself and his pupils, (2) to strengthen his perceptions of social values and goals, (3) to make him conscious of his professional obligation to serve children and youth,

- (4) to enable him to feel and appreciate the dynamism inherent in the teaching profession and (5) to motivate him through the realization of this dynamism, to become an effective teacher.
- 8.4. Curriculum for Teacher Education.—The following areas of know-ledge are necessary to prepare an effective teacher ready to serve these objectives:—
 - (1) Knowledge of how children and youth absorb formal and informal learning in the school, at home, and in the community.
 - (2) Knowledge of the objectives of school education as related to the needs of the Indian society and to its relationships with the international communities, in an age of science and technology.
 - (3) Knowledge of the school as an institution and of the principles and skills involved in the organization of its managerial and instructional work, by best utilizing the available facilities and abilities, and energies of teachers and pupils.
 - (4) Knowledge of the curricular subjects in which instruction is to be imparted in the school and of the techniques suited to each.
 - (5) Knowledge of the different roles of the teacher in the school and the community and the attitudes and skills which have to be acquired for playing the roles successfully.
 - (6) Knowledge of the educational system and the professional conditions within which the teacher must operate.
 - (7) Knowledge of how to utilize the resources and programmes which would lead to continuous professional growth.
- 8.5. Work-Experience.—Most educationists are now of the opinion that all good education should consist of three basic elements: (a) study of languages and humanities, (b) study of Mathematics and Science, (c) work-experience based on participation in the productive and social activities, appropriate to the needs of the community as well as to the child's development. This third element has entered into the programmes of Basic schools, to a limited extent, but conventional educational curricula have been neglecting work-experience and community service. Absence of a systematic provision for work-experience is a glaring weakness of the existing system of education. In order to overcome the bookcentred character of school and college education, and to introduce students to creative activities, the inclusion of work-experience in the curricula of all stages of education is recommended. It is pointed out that before the system of formal schooling came into existence, the child matured through

participation in all the activities of the family and society. This experience gave him a very sound education not only for becoming an adjusted member of society but adding to its economic production. The major drawback of such informal education was its traditional nature. It did not prepare the child either to face the changes that would take place in society or to bring about desirable changes. The formal system of education restricted the child to book learning and many of his avenues for learning through actual experience were cut off. Since all education, in its most fundamental concept is a continuous series of experience, the formalism of the school failed to educate the child.

Work-experience is given an important place in the schools of socialist countries of Europe, particularly the USSR. It is provided through a kind of polytechnical education which is developed throughout the tenyear schooling. Work-experience has many of the elements of the activity method emphasized by Gandhiji. The difference lies in its being towards preparing our children for the socio-economic conditions of a world dominated by a rush of science and technology. The aim of workexperience is also to bridge the gap between intellectual and manual work by encouraging in the students, the attitudes which would help them to engage in productive process. All work-experience should, moreover, develop their inventiveness, generate in them habits of precise, persistent work, and self-respect through socially useful productive activity. When community service is added to manual labour, the aims of work-experience become wider and the child is led towards removing the separation of the educated from the masses. Work-experience, therefore, is to be given in two forms: productive work-experience related to technology and workexperience in community services and group-life. It is to be provided, not through formal lessons but through selected activities from among a variety of suggested programmes.

Work-experience is to be suited to the age of the student and is to be related to the psychological and physical development of children during various stages of school life. It is to be provided at the collegiate level also. For the purpose of conducting programmes of work-experience, workshops may be attached to rural secondary schools and collegiate institutions. Where this is not possible, suitable kits of tools and materials, manufactured at low cost, may be made available. Gardening and farmwork may be emphasized. This experience should be made possible even to urban schools at least to some extent. Programmes of teacher-education should necessarily include as much work-experience as possible related both to creative manual labour and community services.

8.6. Formation of Pedagogical Abilities in Teachers in the USSR.—The formation of pedagogical abilities is encouraged while pupils are still at school. They help each other actively in school tasks as well as out-of-school activities organized in the Pioneer and Komsomol groups. This enables them to look at the learning process from the other persons' point of view and to find out, whether a point has been explained clearly and whether it has been grasped by the listeners. The powers of observation, imagination and distributive attention to individuals of different abilities, essential for becoming a teacher, are thus formed at the school stage. The school programmes aim at developing in the pupils organizing ability, sense of duty towards others and concern for discipline. Thus when a student enters a pedagogical institute, he comes fully equipped with the fundamental pedagogical abilities.

In the pedagogical institute he is helped to acquire a deep knowledge of the subject he has to teach, understand national policies and see school problems in their total perspective. The conditions of practical work very closely resemble those in which the teacher would be required to work after training. Student-teachers work as assistants to regular teachers, teach a whole class and give guidance to individual pupils. The practice of individual guidance is considered extremely important at an early stage in practical training because it helps the student-teacher to observe children, understand their problems and forms the basis for grasping pedagogical theory. He helps pupils in their collective work, social activities and games. He learns to maintain discipline through the use of the whole collective body of the pupils which controls the behaviour of every individual pupil. He tries to discover the special talents of each pupil so that they may be developed and also utilised for enriching the cultural and social life of the school. In the early stages of training, he receives very httle guidance in his practical work and is encouraged to face and solve pedagogical difficulties on his own initiative. It is found that teachers who have to face a large number of problems ultimately develop into better teachers than those whose practical work is done in easier circumstances. No special demonstration schools are, therefore, provided. He observes children at all types of activities and is helped to know how to conduct examinations and mark the pupil's work. After some period of training, the professors note the progress of each student-teacher and divide the whole student-body into three categories for the purposes of guidance. Teachers who show good progress, form the first category, teachers who are diffident and slow are placed in the second, and the third group consists of those whose difficulties arise from their inadequate experience of working with children. They are guided to adapt their methods of work to the peculiarities of each child. If they are found indifferent towards the pupils and not likely to improve, they have to leave the institute and enter a vocational field where pedagogical abilities are not required.

- 8.7. Practical Work for Student-Teachers in the UK.—The practice of attaching a "demonstration school" to a teachers' college has become out-of-date. Practice teaching takes the form of full-time attendance at school, within reach of the college, for short periods of 3 to 4 weeks at a time and covers about 12 weeks during the training period. The student begins with observing experienced teachers at work and gradually starts participation in actual teaching work. Towards the end of the practice period, he is made responsible for planning and organizing a connected programme of teaching work. A useful result of this system is that college lecturers, who from time to time supervise the work of the student-teachers, are able to keep in close touch with the problems and difficulties of the school and are able to maintain a hard realism in the training imparted in the college. It is now obligatory for the lecturer who teaches a subject and its special method to observe and guide practice teaching in his own subject. For instance, a lecturer in Mathematics would teach Mathematics, its special method of teaching and would help the teachers of the practising schools in the supervision of the work of the student-teachers. Experiment and research in new teaching techniques become possible only when the lecturer in that subject makes himself completely responsible for teaching the knowledge content as well as its instructional methods.
- 8.8. Co-operating Schools.—In the USA, the practice of seeking the co-operation of schools for evolving plans and programmes for pre-service teacher-education has become widespread. Recently, some States have even evolved legal procedures for formalizing the arrangement for practical work in co-operating schools. The National Commission on Teacher-Education and Professional Standards has appointed a joint committee of professional organizations, to make recommendations about the responsibility of the State Education Department in promoting and systematically organizing the co-operative programme in teacher-education. Proposals are being formulated to seek Federal and State aid for examining and financially supporting comprehensive plans for co-operative student-teaching by schools and teachers' colleges. Different practices of the programme are in evidence in different States. However, they have a number of similar characheristics and tendencies. Their general objectives are:—
 - (a) To improve the quality and extent of teaching experience for the student-teacher;

- (b) To bring the school and the teachers' college closer together for planning and supervising the professional preparation of the student-teacher;
- (c) To facilitate exchange of ideas between the school and the college regarding the improvements needed in the procedures and content of the professional preparation of the student-teacher;
- (d) To bring about informal increase and variety in the number of persons supervising practice teaching;
- (e) To develop programmes of action research through the mutual co-operation of the school and the teachers' college;
 - (f) To provide a means for effecting changes in the curriculum;
- (g) To develop a programme for the in-service education of the supervisory personnel working in the schools.
- 8.9. The Size of the Colleges of Education.—The Robin's Committee appointed in the UK, for the reorganization of university education advocated a size of 750 for any college including a college of education. Many good programmes of teacher-education are carried out in the USA in colleges of the size of 1,500 to 2,500. The Teachers' College, Columbia University, has a student-body of more than 6,000. The pedagogical institutes of the USSR are equally big.

Iarge-sized institutions can conduct courses of teacher-education at various levels and offer facilities for a special study of different courses in teacher-education and educational administration. Because of their size, they can have a large and capable staff, plenty of equipment, well stocked laboratories and libraries and an atmosphere filled with different types of activities. Small colleges cannot be staffed, equipped and organized efficiently and economically. Higher enrolments reduce the per capita cost, without adversely affecting efficiency of training, because they secure a large staff specialising in various branches of education and content subjects. Another advantage of large-sized institutions is that they can make good provision for the recreational and residential amenities to the student-teachers; the intellectual activities in a large institution is more pronounced on account of the greater interaction of the talent of the various members of the staff. The size of the staff often enables the institute to adopt economical methods of space-utilisation by alternating the academic and practical work of the students in the morning and evening or even on a weekly basis. While half the staff engages one batch of the students in academic work, the other half helps another batch to manage practical work. The total students-body, when divided into

convenient groups, can work with greater efficiency and utilise the special facilities of class rooms, common rooms, library, science and psychological laboratories, etc., with greater advantage.

- 8.10. Comprehensive Colleges.-Comprehensive colleges of teachereducation are intended to combine the arrangements for the preparation of teachers for different levels of school-education. It is considered unnatural to separate either the school-stages (particularly primary and secondary) or the education of their teachers into water-tight compartments. The comprehensive colleges will, therefore, offer courses for secondary, primary and even pre-primary teachers with some provision in all these levels to work together in programmes of practical work. The comprehensive colleges would lead not only to a co-ordinated improvement of teaching in secondary and primary schools but would also make better staffs available for the education of primary teachers. The greatest advantage of the comprehensive colleges is staffs having a variety of special qualifications in the major areas of education and content-subjects. To implement a good teacher-education curriculum which includes content-subjects, 12 to 14 teacher-educators are required. In addition, more specialists staff is necessary for giving guidance in the preparation of audio-visual aids, programmes of sports and games, organization of youth-activities and community-service, programmes of work-experience organization of schoollibrary, and so on. This large staff can look after the training needs of about 400 student-teachers at a time. This number, however, does not belong to just one stage of teacher-education. The size of the college reduces the overhead expenditure and facilitates the full utilization of such facilities as class-rooms, library, laboratory, work-room, audio-visual room, The four major advantages of a comprehensive college, therefore, are: (a) the variety in the qualifications of the staff and consequent efficiency, (b) reduction in the per capita cost of teacher-education, (c) removal of the compartmentalization of teacher-education programmes and (d) integration of all school-stages for research and experimentation.
- 8.11. Four-Year Courses for Teacher Education.—The experiment of four-year courses in teacher-education, leading to the B.Ed. degree, combines the features of a four-year graduation course and one-year teacher-training course. Four-year courses which are yet in an experimental stage in our country are being conducted at the University of Baroda, University of Kurukshetra, and the Rural Institute at Cargoti (District Kolhapur). The objective of this course is to integrate subject-teaching with pedagogical training in order to develop in the students, a firm grasp of the

subject matter as well as the craft of teaching. The candidates with the matriculation or equivalent qualification have to undergo the course for four years, and those who have completed the higher secondary or P. U. C. can finish it in three years.

It is yet too early to assess the fulfilment of the objectives enunciated for the course. So far, the major difficulty in the successful implementation of the course is their inflexibility. The integrated course-content begins right in the first year and leaves no scope to the entrant to change his mind later. One can understand the hesitation of most young persons to enter a collegiate course which restricts them to the choice of just one, specific, low-paid, profession. It is difficult for those who have set their minds on a collegiate course, to take an irrevocable decision at the age of 17 to enter teaching profession. The Rural Institute, in particular, integrates pedagogical and general education, right from the start and leaves no possibility for any student to go into general education courses in case adaptation to the integrated course is not achieved. The maturity of outlook and general knowledge required for understanding and appreciating the foundations of pedagogy is hardly developed at the age of 16 and 17, and the exposure of the candidates to instructional problems at this early age is rather a big challenge to their ability and motivation to take a sudden leap from adolescence into adulthood.

Curriculum.—The curriculum at the Rural Institute which runs the only feur-year teacher-education course in Maharashtra, makes the study of English, Community Development and Extension obligatory. Choice of any two school subjects can be made, in addition to 7 papers in pedagogy (The obligatory subjects are the same as those for other three-year diploma courses in rural services, conducted by the same Institute). The prospects of the Course describes the content of Pedagogy, as follows:—

The teaching of pedagogics will be spread over as under :-

1st Year

- (i) Principles of Teaching, School Organization, Health Education and Educational Administration;
 - (ii) Modern problems with special reference to rural areas.

2nd Year

- (i) Experimental Education and Statistics;
- (ii) Psychological Basis of Education;

3rd Year

- (i) Philosophical and Sociological Foundations of Education;
- (ii) Special Methods of Teaching the selected school-subjects.

 The medium of instruction is the regional language. A considerable emphasis is placed on study of the regional language throughout the duration of the course.

At the end of each year, an examination is held by the National Council for Rural Higher Education. Six papers are assessed at the end of the first year, seven at the end of the second year and nine at the end of the third year. The course is very comprehensive and contains under "pedagogies" what may properly be called "Education" subjects. The staff students work for full six hours a day, for five days in the week and for four hours on Saturday. Instructional work commences on 20th June and closes on 15th April. The examinatoins are held after this date. A fourweek vacation is given in October. X'mas holidays are not given. The number of working days per year comes to 240, excluding days devoted to examination. The students keep a meticulously detailed record of every pedagogical and extension activity. They have to make a spot-study of some problems of village schools, and prepare a paper on its basis. One week's internship in a rural secondary school is provided every year. The students work under the guidance and supervision of the head-masters of the schools and prepare a detailed report on their activities during the internship week. The number of stray lessons given each year is ten, five in each subject. They teach Standards V, VI and VII during the first year, Standards VIII, IX, and X during the second year and Standards I to IV and Standard XI in the third year. The postponement of practice teaching for Standards I to IV, till the third year, is based on the principle that younger children require greater maturity in the teacher. Observation of a large number of lessons is carried out and the students have the obligation of fully discussing the merits and deficiencies of each lesson observed by them. After every lesson, the observers and the practising teacher have a 45 minute-session under the guidance of the master of method and hold a detailed discussion of the lesson plan, its class-room implementation, and other related matters. Every factor connected with the teaching and learning of the unit concerned, is examined. This practice enables the observers to put themselves in the role of the practising teacher and the discussion is as useful (perhaps even more) as the giving of a practice lesson by each of them. While drawing the lesson plan, the practice of groupwork is followed the student-teachers specializing in a particular subject, sit together and develop the plants for everybody's lesson assignment. These discussions bring out a large number

of creative ideas and the observation of the resulting lessons is done by interested spectators who are involved in planning it. Such group planning emphasises co-operative work as a valuable pedagogical experience, prevents the lesson from deteriorating into an artificial performance watched by fault-finding critics, enables the brighter students to help the weaker ones and gives each participant the experience of planning hundreds of lessons. Such group-work is a challenge to every student to apply his intelligence to every instructional problem and contribute his best ideas during group discussions.

The traditional training courses at the secondary and primary levels in the State, can take from these features many valuable suggestions for the reorganization of the duration of their courses and methods of practical work.

8.12. Correspondence Courses .-- The concept and practice of correspondence courses for professional training of different types are not new. such courses are offered even for engineering education in advanced countries and workshop practice is provided at suitable centres. A variety of correspondence courses have been instituted and are rapidly multiplying in the USA, USSR, UK, the Scandinavian countries and newly emerging nations in the Middle East. However, our unfamiliarity with these courses gives rise to some doubts regarding their efficacy. It is natural that persons used to the traditional methods of teacher-training, should look with disfavour on a method which calls upon the teacher to study on his own, without any day to day supervision of his progress. But self-study is actually the best feature of correspondence courses. Assignments based on a well-formulated syllabus are to be carried out at fixed intervals. They are assessed by experienced and qualified teachers and teacher-educators specially appointed to teach by the correspondence method. A carefully drawn up programme of practical work is carried out by the student-teacher at a consultation centre, for two to three months. Good training institutions are to be selected as consultation centres and their staffs are given an orientation in how to guide, supervise and evaluate the practical work of correspondence-students. Every one has to come to a central place for the final examination which necessarily includes an oral examination. Consultation Centres having qualified teacher-educators with a proper orientation, and having the material equipment essential for training, would be more effective than the many sub-standard institutions which pretend to give training.

Correspondence courses would serve to train teachers in all fields of knowledge related to the theory and practice of education both in pre-service and in-service courses. For the latter, they would solve the problem of the appointment of substitutes. This extra expenditure can easily be avoided and a substantial proportion of funds can be released for organizing good consul-

tation centres. The expenditure on establishing a large number of training institutions which can give effective training, is considerable. A few selected teacher training institutions enabled to function at the maximum level of efficiency, would give better institutional training and could also serve as the Consultation Centres for correspondence education.

The utility of correspondence education for clearing the back-log of untrained teachers is unquestionable. The training of such categories of teachers as the older men teachers with family responsibilities and rural women teachers, may be desirably carried out through correspondence. Intensive practical training of about three months at a well staffed and well equipped consultation centre, would amply take care of the efficiency of their practical training. In the years to come more women teachers will have to be recruited in the rural areas for inducing the enrolment and attendance of girls in primary schools. If women teachers are enabled to undergo training without a disrruption of their home life, it should be possible to obtain their services in increasing numbers.

As regards in-service training, correspondence courses in content-subjects would be a great blessing to teachers. Such courses have been in existence in most countries for many years past. The International Correspondence School and the British Institutes have been offering all types of "content" courses; the number of persons who take advantage of these facilities is vast.

The University of Delhi runs B.A. course by correspondence. A beginning has to be made in our country to utilise such methods of further education for the vast number of our teachers.

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8.13. Techniques of Instruction.—In the education of teachers, the methods of teaching must be suitable for professionally motivated adult students. Instructional skills, professional attitudes and educational values can only be learned and not taught. Self-study through reading, active thinking through group work and an application of educational principles to solve problem-situations, are the only methods which would produce effective teachers. There could be some lecture-discussions but not just lectures. Audio-visual aids should be used for assisting the lecture-discussions. Programmed instruction, which is being used in most of the European countries at different levels of education, right upto the university stage, should be tried out for training teachers. The Department of Psychological Foundations (N. C. E. R. T.), is undertaking an experiment in using the method for the pre-service training of primary teachers. Self-instructional material for some of the content courses in the training syllabus is under preparation. The method consists essentially in the presentation to the

student (either in printed form or through a machine), small, logically sequential steps in a learning course, to each of which he must react and on each of which he receives immediate control as to whether his answer was correct or not. The method permits students to proceed individually at their own speed and also provides much self-study or individual remedial work.

The method has been tried successfully in nearly all levels and forms of education. It is extremely flexible and can be used with cyclostyled sheets, printed text-books, loose-leaf note-books, black-board exercises for group work, through simple or elaborate machines (where tape-recording and films are often used in conjunction with printed material), and even with television and digital computors.

A fair amount of printed courses are now available from the US. and UK. and some could be tried out. The best course, eventually, would be for educators in India to develop their own programmes, once they have mastered the techniques, try these out and have them cheaply produced (by cyclostyling even). This should be well worth-while in the field of science education and in-service training of science teachers. Programmed instruction has been called the first real revolution in teaching since printing was invented.

In teacher-education, programmed instruction would not only be effective in the acquisition of subject-knowledge, step by step, but in developing the self-study habits which the teacher could later pass on to the pupils. The sequential learning implicit in programmed instruction would habituate the teacher to logical thinking and this would help him to teach the children in a clear-cut sequence of subject units. For the purposes of teacher education programmed text-books and film-strips would be most suitable material.

8.14. Integrated Planning and Direction of Teacher Education.—Though colleges of education at the secondary level are affiliated to one or the other university in the State, primary and pre-primary training institutions are controlled by the Education Department. Wide variations are found between the requirements set by the Universities and the Department. The curricula, conduct of examination, staffing, admission qualifications of trainees, physical and material facilities show a conspicuous lack of standards except in university-controlled institutions. There is a great necessity for creating an agency to maintain the standards in teacher-education, to guide and supervise training institutions and to integrate the plans and programmes of teacher-education. The recommendations in this behalf, have been included from time to time, in several reports on teacher-education, among

- which the following have emphatically advised the creation of a State Council or State Board for Teacher Education:
 - (1) First National Seminar on the Education of Primary Teachers in India, 1960
 - (2) Second National Seminar on the Education of Primary Teachers in India, 1962
 - (3) Study-group on Training of Elementary Teachers, 1963
 - (4) Study-group on Education of Secondary Teachers, 1964

The opinion of all such study-groups has leaned against a statutory body and the idea of creating the Board by an executive order has been favoured. This cautious approach in trying out an innovation before giving it a legal form, is held desirable. The State Board of Teacher Education is to be an organization devoted exclusively to the improvement of the training of teachers at the pre-primary, primary and secondary stages. The main functions are visualized as follows:

- (a) To prepare programmes for the development of teacher-education and recommend them to the Government and also to supervise implementation of the approved programmes;
- (b) To prescribe standards for teacher-education at pre-primary and primary levels and to lay down conditions which every teacher-training institution at this level should fulfil:
- (c) To recommend teacher-training institutions at pre-primary and primary levels for recognition by the Department;
- (d) To organise periodical panel inspections of teacher-training institutions:
- (e) To prepare curricula and syllabuses for pre-service and in-service training programmes at pre-primary and primary levels;
- (f) To conduct examinations and award diplomas and certificates for pre-primary and primary teachers;
- (g) To co-ordinate the training programmes for teachers at different levels and to collaborate with other agencies working in the field;
- (h) To remain in-charge of such other activities connected with teacher-education, as Government may direct from time to time.

The composition of this Board may be as follows:

- (1) Director of Education: Chairman, Ex-Officio.
- (2) Director, State Institute of Education: Vice-Chairman, Ex-Officio.

- (3) Deputy Director of Education (in charge of Teacher Education)
 Ex-Officio Member
- (4) A Class-I Officer of the State Institute of Education—Ex-Officio Secretary.
- (5) Principals of Secondary Training College and representatives of universities.
 - (6) Principals of Primary and Pre-Primary Training Institutions.
- (7) Persons nominated by Government to include educationists and public leaders.
- 8.15. Maintenance of Professional Standards—(i) Certification of Teachers.—In many countries, trained teachers are given a certificate indicating legal sanction to follow teaching as a profession. Certification requirements are enforced through the passing of regulations which hold school authorities liable for punishment, if payment is made to non-certified teachers from public funds. Certificates are issued by a professional body and are based on both academic and professional qualifications. The first certificate is always treated as probationary. There is a tendency to involve teachers' organizations more actively in the development of certification standards. The probationary certificate holds good for a period of about Thereafter, a permanent certificate is granted but it is valid for only six to ten years and is renewed, only if some addition to professional qualifications takes place. "Specialist Certificates" are granted to teachers who undergo courses in specific subjects. These also have to be renewed from time to time. Certificates can be withdrawn if a teacher is negligent of his duties, fails to show professional improvement, disregards professional ethics, indulges in anti-social activities, etc. The practice of certification is considered as a very effective means of inducing the continuous professional growth of teachers and maintaining professional standards.
- (ii) Teacher Rating.—Adequate and reliable criteria are necessary for evaluating the work of teachers. The value of training would not be realized unless a more realistic system of evaluating the work of teachers is evolved. This task needs to be undertaken with the assistance of the teacher-training institutions. Prescribing the hours of work and work load, and assessment of teaching efficiency on the basis of examination results, are no measures either of the teachers' attitudes or skills. Reliable criteria should be prepared for evaluating the work of teachers and teacher-educators also. In the evaluation of teacher-educators, research work done, publications, guidance offered to the student-teachers, special curricular and co-curricular activities undertaken and contribution to the development of teacher-education programmes, may be some of the factors to be weighed in the

criteria for teacher-educators. The rating of teacher-educators should be done by combining an objective assessment by the head of the institution, the self-evaluation by the teacher-educator himself, and objective rating by members of the inspection committees or panels. In the case of teachers, the teachers' organizations should assist in the evaluation. In the case of teacher-educators, the student-teachers also may participate, to some extent, in conducting the evaluation objectively.

- (iii) Age of Admission to Training.—There is a general tendency to increase the age of entrance to teacher-education programmes. As an educationist from the UK. recently pointed out, maturity of understanding is very necessary to cope with the modern training programmes. The study of child psychology, child health, parental education, etc. are difficult subjects if the necessary mental maturity which can come only in the post-adolescence period is lacking. The desirable age for entrance to training would be around 20 years. This would be possible in our country when graduate entrants become abundantly available at all levels of training as in the advanced countries. However, the old practice of admitting 16 years old candidates needs to be positively discouraged. The minimum age of entrance to any training programme, should be 18 years. The quality of teachers has to be raised at every stage of education. This would not be possible, if immature teachers are recruited. In the past, compromises had to be made on this point, simply because of the necessity of employing middle-passed teachers in the absence of a sufficient supply of matriculates. Moreover, the objective of the four-year primary school was merely to impart literacy and not "Education" as such. If the objective of pre-school and primary education is to give a social direction to the growth of the child and to build up in him an attitude of not only receptivity but of enquiry into the increasingly complex demands of the world around him, teachers with a deep insight into child-nature and social processes will have to be recruited. In view of the inavailability of highly mature persons required for these stages a compromise may again have to be made; but it should now stop at the age of 18 years. In the years to come, longer courses of pre-service teachereducation will be inevitable and the age of entrance to the teaching profession will automatically be raised to around 20-21 years.
- 8.16. Improvement of Standards in Teacher Education—(i) Qualifications of Teacher Educators.—The quality of teachers naturally depends on the quality of their educators. The concern for increasing the quality of teachers, therefore, stresses the need for a commensurate increase in the qualifications of teacher-educators, both in general and professional subjects. In recent years, the availability of academically better qualified student-teachers has increased, particularly for recruitment at the pre-primary and primary stages. But the qualifications of the teacher-educators at this level are still

the same. Better-qualified teacher-educators are needed at the secondary level in order to attract bright graduates to enter the profession and help in raising the standards of secondary education. The academic and professional qualifications of many secondary teacher-educators are not high enough to induce bright graduates to study under their guidance.

- (ii) Development of Training Institution.—It is necessary that for the qualitative improvement of its programmes, each training institution, should prepare its own short-term development plan for a period of two years and a longer-term plan for ten years. The plan should be prepared in consultation with teachers' organizations, Universities and State Council/Board of Teacher Education. The Universities/State Board of Teacher Education should select some institutions for special development. Criteria for selection of such institutions should be prepared by Universities/State Board. The development project should continue, with adequate financial assistance, for a period of not less than three years. Thereafter, the institution should continue its growth on its own strength. The development of a selected institution should be guided and assessed from time to time by its sponsoring agency.
- (iii) Mobilization of Part-Time and Voluntary Teachers.—In urban areas, there usually are a large number of women graduates who become free from house-keeping and child-care, around the age of 35-40. They have plenty of time on their hand and also a desire to use their education. If their services are utilized either as paid or voluntary part-time teachers, a considerable addition of well-qualified teachers would be made to the existing teaching force. It is wasteful to ignore the contribution which educated women can make for improving the quality of teaching, even as part-time teachers. Their supply would gradually increase since the number of persons seeking work always increases with an increase in the opportunities for employment. It is, therefore, necessary to organize a pilot scheme in one or two large cities like Bombay and Poona, for inducing graduate women to offer their services as part-time teachers in secondary as well as primary schools.

Even two hours of work per day by graduates in Science, Mathematics and English would improve the education of hundreds of children. There is a growing desire among educated Indian women to use their ability to widen their mental horizon, to meet people, and to improve their living standard. It could be channelized into their acceptance of the teaching profession. A study of the measures required to help women fulfil the dual role of managing a job and family was recently carried out under the auspices of the Organization for Economic Co-operation and Development. The investigator, Dr. Viola Klein, has pointed out that "it is in the public interest to included from time to time, in several reports on teacher education, among

enable women to assume activities outside the home without being forced to neglect, either their domestic or professional responsibility or being unduly burdened by them". A great possibility lies in this suggestion for augmenting and improving our teaching force by the addition of mature and competent part-time women-teachers.

- 8.17. Institutional Patterns for Improving Teacher Education—(i) State Institute of Education.—The State Institutes of Education are a new experiment in Indian education, sponsored by the Union Ministry of Education. They were established in fifteen States in January 1964 and their regular functioning has begun in April 1964. The State Institute for Maharashtra is located in Poona. The fundamental objective of the State Institutes is to bring about a qualitative improvement of education. They are conceived as an integral part of the State Education Departments, functioning under the supervision and guidance of the Director of Education. The State institute is expected to carry out the following functions:—
 - (i) improvement of supervision and administration; (ii) improvement of the competence of teacher-educators; (iii) improvement of curricula, teaching methods and teaching aids; (iv) development of research to assist in the solution of urgent educational problems; (v) development of educational planning and evaluation of educational programmes; (vi) conduct and supervision of educational experiments; (vii) mobilization of public support for education. For reasons of convenience, the initial activities of the Institutes were designed to tackle the urgent problems of elementary education. But their scope is gradually being extended to several other sectors. The main branches of the work of the Institutes are four—
 - (i) in-service training of teacher-educators and educational administrators, (ii) extension, (iii) research, and (iv) publications.
- (ii) State Institute of English.—In order to maintain satisfactory standards in the teaching of English at the school-stage, a State Institute of English has already been set up and four Divisional Institutes of English would soon be established in the State. These would intensively train teacher-educators from primary training colleges and secondary teachers in keypositions, so that their services might be utilized to give comprehensive long-term courses and short-term refresher-courses to teachers of English from Standard V onwards. The teacher-educators would be asigned to training colleges selected as centres for the intensive education of primary teachers in the subject-knowledge of English and its special teaching techniques.

The Institute of English will conduct research connected with the teaching of English, assist in the preparation and selection of suitable publications including text-books, train and reorient the staffs of the Divisional

Institutes, and supervise and co-ordinate their work as a whole. The Divisional Institutes will organize training programmes for teacher-educators and other key-personnel, as indicated above. They will attach an equal importance to organizing an Extension Service to primary training colleges and secondary schools. The experiences gathered in these field-services will be utilized for the research programme of the Institute and for readjusting and improving the training courses in English.

(iii) State Institute of Science Education.—A great impetus has been given to the programme of in-service education of science teachers by the report of the Indian Parliamentary and Scientific Committee on "Science Education in Schools". This committee, which was formed in August 1961, under the Chairmanship of the late Prime Minister Shri Lal Bahadur Shastri, submitted its report in 1963 and stressed the importance of encouraging the teaching of Science in schools and preparing teachers of Science. It stated that "In the field of education apart from constitutional directive that all children upto the age of 14 must be compulsorily brought to school, during ten years' planning, we have realised that all education and training has to be not only for the purpose of transmitting our traditional values and knowledge to the next generation but also for building up a base of responsible citizens and for training man power, so that requirements in terms of human resources for developing the economy could be assessed from time to time and suitable programmes of education and training instituted, modifying and improving them in relation to the requirements of our economy, as it develops in future.".

It pointed out the utility of the Summer Institutes in Science organized through the collaboration of the U. G. C. and N. C. E. R. T. and suggested similar further courses for secondary school teachers. It appreciated the fact that programmes like the Summer Institutes brought the universities closer to the school system and commended it as a promising development which would be fruitful in providing mental stimulation to teachers for advancing their frontiers of knowledge and for improving the standards of school education all over the country. While pointing out the necessity of laboratories, text-books and other such matters, the committee emphasized the key role of the teacher in improving the standards of Science education. To quote the report, "The key issue is the availability of teachers and their education and training. Syllabus, however well-founded, might be completely negatived by teachers of poor quality."

The Ministry of Education is now promoting a programme for the establishment of Institutes of Science Education. They are to undertake a comprehensive programme of the in-service training of science-teachers. The Science Education Unit established in Maharashtra in 1965, will develop into the Institute of Science Education.

8.18. Relation between New Techniques and Ability of Teachers.—In underleveloped countries, educational expansion creates two conflicting demands: (a) Keeping down the costs of education and (b) guarding against the dilution of its quality lest it becomes a drag on the economy instead of its promoter. The economists have been insisting on the use of new techniques of instruction, particularly in primary schools, for keeping down the costs of education. As stated by Harbison: "It is unquestionably true that the cost of primary education must be kept down otherwise, it will consume most of the resources which are more urgently needed for secondary and higher education Consequently, developing countries should concentrate their attention on finding new techniques of education which can be utilized effectively by large numbers of teachers who themselves have had little more than a primary education and which can maximise the strategic services of a very small group of more highly trained personnel. The application of new teaching techniques-visual aids, programmed learning, instruction by radio and television, revised and simplified curricula and textsoffer a real challenge both to the developing countries and the assisting countries. The discovery of new techniques for primary education will be given much more serious consideration once it is understood by politicians, planners, educators and outside experts alike that under conditions of accelerated growth it will be impossible to raise substantially either the pay or the qualifications of teachers in the near future.".

New techniques of instruction have to be used firstly, to keep down the cost of education through the reduction of wastage and through the employment of fewer teachers to teach more children. Moreover, they would also obviate the necessity of recruiting vast numbers of poorly qualified teachers and the restriction of their numbers would perhaps enable government to increase their emoluments. All these benefits of new educational technology seem most attractive and desirable, particularly in a poor country like ours. At the same time, the capability of the existing teaching-force to handle new teaching techniques appears doubtful. Techniques which succeed in the hands of competent, well-trained and imaginative teachers miserably fail when they are generalized.

In the final analysis, therefore, it is on the basis of the level of competence of the teacher that a developing country can accept money-saving and effective instructional techniques. In this connection, the attempt made by Prof. Beeby to divide the teachers from developing countires into four stages of competence, is well-worth a careful study. These stages are: I—Dame-School; II—Stage of Formalism; III—Stage of Transition; and IV—Stage of Meaning. We have fortunately left the first stage far behind.

But stage II which consists of teachers barely educated upto Standard VII, is still very much with us at the primary level. It is a real block to the modernization of primary education. To quote Prof. Beeby:

"The teacher in a village school who has himself struggled only to a doubtful Grade VI or Grade VII level is always teaching to the limits of his knowledge. He clings desperately to the official syllabus, and the tighter it is the safer he feels. Beyond the pasteboard covers of the one official text-book lies the dark void where unknown questions lurk. The teacher is afraid of any other questions in the class-room but those he himself asks, for they are the only ones to which he can be sure of knowing the answers. This fact alone throws his teaching methods back into the last century. If the pupils cannot be encouraged to ask their own awkward questions, most of techniques of the good modern class-room become impossible."

At Stage III, the teachers have received secondary education and also some training. "The gap between what they know and what their pupils know is now greater, so that the teacher feels more secure and can allow the children a little more latitude to ask questions, although it is unlikely that he will go out of his way to stimulate them to do so". Further, at Stage III, the official syllabus remains, but is more permissive and the adventurous teachers make for ways beyond its bounds; the rest do not. It will probably be left to the school principal to promote children through the grades, though the final certificate marking the satisfactory completion of the primary schools course may continue to be given on the results of an examination set by the education authority and, as the time for this approaches, non-examinable "frills", tend to be dropped from the day's work.

At stage-IV, the teacher is well-educated and well-trained. He gives meaning to everything that is involved in the work of teaching and learning. He encourages the child to think for himself. He provides for them more mental activity, interest in the outside world, opportunities for creative work and more avenues for emotional and aesthetic development. "A teacher with these wider goals will, of necessity, adopt a type of class-room discipline that is more relaxed and positive, and his higher level of education and training tends to give him the sense of security that such a change demands. These internal conditions cannot prevail unless the external controls of the school are relaxed; external examinations will either disappear or shrink in importance and inspection will shade into professional co-operation. The gap between the life of the class-room and the life of the community is reduced. If all these changes are to be brought about, better buildings and more equipment than at stage III seem inevitable. So, in my experience, do increased costs."

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CHAPTER NINE

CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTORY

In the preceding chapters the problems relating to each level of teachereducation and to the task of providing teachers for the entire school-stage have been discussed in detail and suggestions have been given in a fairly extensive form in every Chapter. In stating the final recommendations, however, it was not found convenient to classify them according to levels of teacher-education because several matters seem to overlap between level and level. An attempt has, therefore, been made in this Chapter to classify the conclusions and recommendations of the Committee according to the major variables involved in ensuring the quality of the teacher. These have been already stated in Chapter I and the manner in which they have an impact on the quality of teachers has also been described therein. The Committee felt that if the findings and suggestions incorporated in the previous chapters were to be reorganized and classified under each of those variables, they would lead to more precise conclusions and that this procedure would obviate the need to repeat the same kind of recommendations for each different level of provision for teacher-education. Besides, such matters as the planning and organization of teacher-education must be treated from the comprehensive view-point of the entire field of teacher-education and the categorisation of the conclusions and recommendations according to the variables of quality is of particular help in this respect.

Since an exhaustive discussion of the problems of teacher-education in the State has already been recorded in the preceding chapters and detailed indications have been given regarding the trend of reform for each level, the conclusions in this chapter have been stated as briefly as possible. Their major purpose is simply to provide a perspective and preface ti the recommendations set out in detail.

A. TRADITIONALISM IN EDUCATION

Our education at the school level is still strongly marked by traditional objectives, curricula, and teaching methods, though some signs of change have been apparent in the post-independence period. The old role of education as the stern guardian of traditional culture is gradually readjusting itself to the compelling need for discarding several old traditions which might obstruct the socio-economic progress of Indian society.

Together with accomplishing a transmission of cultural heritage and formation of character, therefore, education is now expected to contribute to the development of a wider national and international outlook on life among the pupils. The recommedations of the Secondary Education Commission (1952-53) and the experiment of Basic Education have been successful in making the educators and the public aware of the need for releasing school education from the overwhelming burden of rigid curricula and formal examinations. In general, the recent thinking on teaching and learning has acquired a new orientation towards scientific enquiry and experimental work. But this change has been rather slow and not powerful enough to liberate school education sufficiently from traditionalism. If education is to become an instrument for the achievement of national goals, our educational institutions must rapidly become active laboratories for the promotion of socio-economic change and growth. The efforts of the teachers must in future go beyond preparing their pupils for a restricted kind of citizenship and narrow vocational A deeper knowledge of the social processes involved in devising the content and methodology of education must now be acquired by our teachers, at all levels, and their efforts must henceforth be directed towards helping the pupils to acquire a lively spirit of nationalism, democratic habits of living, an urge for engaging in scientific enquiry which would make them important participants in the exciting worldwide adventure of seeking more knowledge about our universe and using it for human progress and peace. Modern education must enable the pupils to commit themselves to achieve national goals without forgetting that in this scientific age the national goals have also to relate themselves to the international goals for the good of all mankind. This process of changing over from traditionalism to modernity in education must now gather momentum. It should, therefore, not only become a concious process for the teachers, but also appear in society as a very widespread "people's movement". There is no doubt that some unsettlement would take place in the field of education during such urgent efforts for its modernization. Still, if any changes are to make a swift impact on society, our old habit of wrapping up new reforms into a traditional garb has to be discarded. We should now boldly help our society and teachers to intellectually apprehend and accept planned changes in education, on a fairly large scale.

RECOMMENDATIONS

1. The main function of our teacher-education programmes should be to provide the educational system with teachers who (a) can understand

the challenge of our developmental goals and (b) possess enough ability to promote the high educational standards required for meeting the challenge.

- 2. All our teacher-education programmes should be thoroughly revised, without delay, to enable the teachers to perform the difficult but essential task of protecting our cultural heritage while promoting the assimilation of science and technology into the texture of our society.
- 3. Many elements from the existing teacher-education programmes such as the stress on craft-work and community service, at the primary level, are inherently good. But they must now be readapted carefully and harmonized with the new calls on education. Some elements which are out of tune with our times should be firmly discarded and the revised programmes, both in theory and practice, should be boldly implemented. (Tentative outlines for revised curricula: Appendix VII).
- 4. Immediate steps should be taken to educate public opinion on the changes which the State must make in its teacher-education programmes in order to improve the quality of school education.
- 5. Administrative measures should be taken immediately in order to introduce the revised teacher-education programmes from June 1968. Revision of curricula and text-books, preparation of hand-books for teacher-educators and all preparatory work needed for the change-over should be completed by December 1967.
- 6. As some of the existing regulations and practices in the recruitment of teachers, teacher-educators and inspecting officers (at all levels) are likely to conflict with the State's efforts towards encouraging the study of English, Science and Mathematics with a view to modernizing school education, steps should be taken to suitably readjust them.
- 7. Text-book writers, teacher-educators and inspecting officers should be throughly re-printed for adapting themselves to the change-over. This task should be undertaken as soon as the revised curricula are ready.
- 8. The organizational pattern and programmes of teacher-education should be carefully evaluated every five years, and readjusted where necessary in order to counteract the possibility of their lapse into traditionalism.

B. CONTENT AND METHOD OF SCHOOL-EDUCATION

It is beyond our terms of reference to analyze fully the traditional nature of the content and method of school-education and to point out how the traditionalism evident in them, should be overcome. However, the following few factors are obvious:

The rigid system of class-teaching and annual examinations derived from the British system of education, has suppressed the freedom of the teacher to experiment with new techniques and curtailed the liberty of the pupils to proceed with their studies according to their own pace. Further, a complete reliance on text-books, rote-work and formal exercises has done much damage to the inventiveness and creative expression of our pupils. This formalism in school-education has also given rise to authoritarian ways of maintaining discipline and has led to a progressive. decrease of a healthy personal contact between teachers and pupils. This picture seen in the schools is almost totally reflected in our system of teacher-education. Unless changes take place simultaneously in the programmes of both school-education and teacher-education, no substantial educational change would be possible. This has been evident in the past when some changes were introduced in the secondary school curriculum but were not harmonized with the curricula and methods of teachereducation at the secondary level. At the primary level, teacher-education was completely brought under the ideology of Basic Education but as corresponding changes did not take place fully in the Primary Schools, a wide gap remained between the programmes of the schools and teacher training institutions. As a result, the progressive elements introduced in primary teacher-education have by now quite disappeared. Another important point which must be taken into account while bringing about an educational change is the need for orienting the public towards the change proposed in school-education and helping it to understand and accept deviations from the traditional practices. Further, inspecting officers and supervisors must also be thoroughly prepared to accept and support the changes in the objectives, content and particularly in the techniques of instruction.

RECOMMENDATIONS

- 1. The traditional content of school education is reflected in the content of teacher-education. It is essential to alter both in accordance with the modern principles of curriculum construction.
- 2. Programmes of teacher-education, at every level, should be in accordance with the objectives and curricula for school education.
- 3. Techniques of school education must be modernized for inculcating in the pupils, the (a) spirit of scientific enquiry, (b) pride in independent thinking, (c) originality of effort, (d) concern for speed and accuracy in all work, and (e) loyalty to social ideals.

- 4. Teachers must be prepared through pre-service and in-service education to handle new techniques, and to facilitate their creative application for increased productivity.
- 5. In order to promote in the teachers the qualities desired in their pupils, all teacher-educators should be immediately trained towards the use of democratic and scientific techniques in teacher-education and, side by side, intensive in-service programmes should also be instituted for inspecting officers to understand new techniques.
- 6. All techniques of school-education should be gradually modernized. As a first step, instead of "lecture" and "dictation" methods, the "group-processes" of teaching and learning should be increasingly brought into practice.
- 7. Experimental work should be undertaken immediately for the gradual introduction of "programmed instruction" in school education.
- 8. The use of technical media such as the film, film-strip, tape-recorder and radio should be planned, in a phased programme, over the next ten years and techniques of school education should accord with those of teacher-education.
- 9. The inspectorate and community leaders should change their traditional methods of controlling the schools, assist the teacher to democratize school-discipline and encourage him to promote in the pupils creative independence of spirit and habits of self-directed activity.

C. COMPOSITION OF THE TEACHING PROFESSION

In the interest of sound education and for utilizing the new technology of teaching, it is important that persons with adequate academic preparation should be recruited to the teaching profession. It is, however, found that our teaching-force at the primary level largely consists of persons who have passed only their P. S. C. Examination. These teachers have hardly any acquaintance with modern science and mathematics. Their mastery over their own language is also most inadequate. Their general knowledge is scanty and they rarely possess the maturity of attitudes and depth of understanding essential to grasp and solve the problems of school children. The proportion of women teachers is still very small and even for Stds. I and II the majority of teachers are men. In the past few years the recruitment of S. S. C. holders has increased and now the primary schools have staffs with two levels of academic qualifications. Further, because P. S. C. holders are still being recruited to the profession, the status of the primary teacher remains very low and this factor of

being equated with P. S. C. holders discourages S. S. C. candidates from entering the teaching-force. Those who enter it are generally persons with indifferent school careers and most of them happen to have dropped English and Mathematics at the S.S.C. Examination. Again, an unreasonable distinction is made between the teachers who handle primary classes attached to secondary schools and those who teach the same classes in primary schools, both as regards qualifications and remuneration. position is extremely anomalous and reduces the status of the primary teachers still further. The scanty knowledge background of the P.S.C. passed primary teacher and the inability of this level of the teaching force to attract persons with secondary education has made it very difficult to introduce new techniques of teaching in primary schools. If new equipment and techniques are used, primary education can be made much more effective than at the moment and its open as well as hidden cost also could be reduced in the long run, because the new methods allow the teacher to teach a larger number of children without detriment to their scholastic achievement, and substantially help to reduce the extent of 'drop-outs' and failures. However, even to understand the new techniques and utilize new equipment, the recruits to the teaching profession at the primary level must have completed their secondary education. Another important point which hardly ever figured in the past discussions on the basic academic qualifications for recruiting primary teachers is the level of knowledge and maturity essential in them for a constant readiness to absorb frequent retraining. But the teachers of to-day must adjust constantly to the changes that are taking place very rapidly in the field of knowledge and in the techniques of school education. Experts in educational planning have pointed out that for the re-training of any teacher at least secondary education must be taken as the minimum basic prepara-It is apparent, therefore, that our teaching force at the primary level will have to take in a larger proportion of S. S. C. E. passed recruits and reduce the proportion of the P.S.C. holders as rapidly as possible. In order to ensure that the new entrants to primary schools are readily adjusted to the school environment, the proportion of women primary teachers also will have to be considerably increased. At the secondary level it has been found difficult to recruit graduates of good attainment and with specialization in subjects normally included in the school curricula. Special efforts will have to be made to overcome the shortage of graduate secondary teachers with a high calibre, if secondary education is to be upgraded and modernized. In this connection, the possibility of giving part-time employment to women graduates needs to be seriously explored. Absence of employment opportunities forces a large number of graduate-women to remain tied to the home even after they have as good

as completed the strenuous period of motherhood and home-making. The services of such mature graduate teachers would be very valuable on a part-time basis. The shortage of well qualified teachers at the secondary level will have to be met by offering suitable incentives by way of scholar-ships, good service conditions and adequate remuneration. Besides, the shortage may be met to some extent by inducing all types of educated persons in the society to work as resource persons and supplement the efforts of the professional teachers. Recruitment rules for teachers at the pre-primary, primary and secondary levels will have to be suitably amended in order to ensure that the composition of the teaching force as a whole contributes towards the enhancement of the quality of school education.

RECOMMENDATIONS

- 1. Since teachers who are educated only upto the P.S.C. level are not fit to give the kind of primary education required for scientific and technological development, and are not capable of using modern techniques of teaching, their recruitment at the primary level, and the admission of P.S.C. holders to the training institutions, particularly as private candidates, should be stopped. This measure should be taken immediately i.e. from June 1967.
- 2. Since the teachers recruited to-day would be required to teach effectively at least till the year 2000 A.D. and work through a period which is bound to be one of constant and revolutionary changes in human affairs, they would need constant re-training. Their lowest qualification must, therefore, be the S. S. C. because that is the level of school education pre-requisite to the retraining of the primary teacher working in a scientific age.
- 3. At the pre-primary level, where the child's smooth transition from home to school and its socialization is more important than its formal education, mature P. S. C. holders may be recruited for the present. But when enough S. S. C. teachers become available to work even in rural and tribal areas, the recruitment of P. S. C. holders should be stopped even at the pre-primary level.
- 4. At the pre-primary level, all teachers should be women and at the primary level, the number of women teachers should be rapidly increased.
- 5. The recruitment qualification for women and tribal teachers at the primary stage should also be the S. S. C. They should be attracted towards the teaching profession by offering them emoluments commensurate with (a) the supply-position, (b) their specially difficult task, and (c) the need for society to speedily educate its backward sections in the interest of social justice and economic development.

- 6. At the secondary level, the recruitment of under-graduates should be severely discouraged.
- 7. For (a) the under-graduates already in employment at the secondary stage, and (b) P. S. C. holders working at the primary and pre-primary stages, a regulation should be laid down requiring them to complete (a) graduation and (b) secondary education, respectively, before June 1971, in order to ensure that they become capable of handling the new educational technology which is coming in with rapidity.
- 8. The recruitment of trained special teachers for Physical Education, Art, Music, and a variety of items in the programme of 'work-experience' should be emphasized in the next five years.
- 9. For an intensive improvement of education in Stds. V to VII which constitute the first stage in the child's pursuit of formal studies, special teachers, with the requisite training, should be appointed for every subject in the curriculum.
- 10. Women graduates who can undertake part-time work as teachers should be provided with increased opportunities and facilities for such employment.
- 11. Voluntary teachers from among the well-to-do educated persons and technical persons such as doctors, engineers, public health specialists, administrators, agriculture officers and leading agriculturists should be requested to spare some time for teaching in schools and augment teacher-resources, as a matter of national duty.
- 12. Graduate and post-graduate students should be organized into teaching-squads of the Peace Corps type to make up the shortage of good teachers at the primary and secondary stages.
- 13. Graduates with Pass/III class should be allowed to reappear for their degree examination and try for a higher class, only if they agree to enter the teaching profession at least for 3 years after improving the quality of their degree.
- 14. While recruiting and training secondary teachers, preference should be given to candidates who have specialized in the subjects related to the school curriculum and have a good command over the medium of instruction.
- 15. The number of women teachers at the primary and secondary stages should be speedily increased by offering them free training.
 - 16. All teacher-education should be made free by 1971.

D. Administration and Supervision of Education

Educational administration in our country is a peculiar mixture of the pattern obtaining in England and certain features of colonial administration. The inspecting officers are expected to be friends, philosophers and guides of teachers, according to the ideal laid down for Her Majesty's Inspectors in Great Britain. However, prior to independence, our inspecting officers could not fulfil the role of their counterparts in Britain because in the colonial structure of administration they were required more to control and punish the teachers than offer them philosophy and friendliness. This intermixture of two opposing concepts in educational administration which we have inherited from the colonial days has not shown much change in the post-independence period. Though some inspecting officers might really want to be friends of the teacher, the rigid structure and procedure of administration which have not yet undergone much change, invariably hold them back. There are others who like the protection which this rigidity offers to them and they stick to it so that they may be spared the effort to go close to the teachers and take special pains for helping them. Moreover, the number of schools and teachers has increased so rapidly that the number of inspecting officers cannot cope with them. The work-loads of inspectors are now extremely heavy and prevent them from paying sufficient attention to the development of schools and to the on-the-job training of teachers. The academic qualifications of inspecting officers have also not shown much increase and their levels are practically the same as those of the teachers. It is, therefore, difficult for them to take a position of leadership among teachers. सन्धर्मेव जयते

The expansion of education has created one more problem. It has resulted in the augmentation of the number of teachers but additions to school-equipment and supply of enough teaching aids and other material facilities, have lagged very much behind. Administrative measures are essential to ensure that the necessary material facilities and at least the minimum essential equipment are provided to the schools in order to enable the teachers to teach properly and the inspecting officers to offer technical guidance. The cultivation of democratic ways of working has also been neglected by the inspectorate. In the interest of democratic values, the administration must increasingly work in collaboration with the professional organizations of teachers and with the communities which support the schools. The professional growth of teachers and the improvement of schools has now to be considered as a joint enterprise of the educational administrator, teachers organizations, community leaders and parents. In order to promote such democratic actions, a large number of changes

need to be effected in the administrative procedures as also in the methods of evaluating the work of schools and teachers.

RECOMMENDATIONS

- 1. The administration and supervision of teaching personnel should be more personalized than it is at present.
- 2. All inspectors, even at the pre-primary and primary levels, should be graduates with good professional qualifications, and special training for further guiding the teachers of the particular school-level which is entrusted to them. At the secondary level, post-graduate professional qualifications should be made obligatory for the inspecting staff.
- 3. The emoluments of inspectors should be commensurate with their qualifications and responsibilities.
- 4. Every inspector should adopt three or four schools in his/her area of operation, for their intensive development on a planned basis, in order to make them serve as demonstration centres of good teaching and school-organization.
- 5. For helping the teachers to teach effectively, it is necessary to provide more funds for supplying teaching aids—particularly to primary schools—and to bring up the existing ratio of 85:15 in teacher costs and non-teacher costs at the primary stage to the normal ratio of 60:40.
- 6. Recognised teachers' associations should be encouraged to participate in programmes of personnel improvement and they should not be recognised unless their activities include a high proportion of academic programmes.
- 7. The criteria for the recognition of teachers' organisations should preferably be prepared by the State Board of Teacher-Education and submitted to Government for implementation. (See page 151).
- 8. The practice of 'certification' of teachers and the 'rating' of teachers into grades, should be adopted and followed on the basis of carefully formulated criteria, in order to motivate them for maintaining good quality in their work.
- 9. The co-operation of recognized teachers' organizations should be invited in the certification of teachers.
- 10. Promotions to higher posts in teaching and administration should be given strictly on merit.

E. ORGANIZATION AND SUPERVISION OF TEACHER EDUCATION

The reason why only secondary teacher training was undertaken by the universities lies in the purely historical accident of English being the medium of instruction at that level and the entrance qualifications being post-matriculation. The medium of instruction for pre-primary and primary teachereducation has been the regional languages right from the start. Also, most of the student-teachers at the two lower levels have been non-matriculates who cannot come within the jurisdiction of the universities. It will thus be seen that apart from the two purely situational factors of medium of instruction and admission qualifications, necessitated by the circumstances in which teacher-education at different levels began in the State, no educational considerations have governed the conduct of the secondary teacher-education programmes by the Universities and primary and pre-primary programmes by the Education Department. The two situational reasons are gradually disappearing with the growing numbers of S. S. C. passed entrants at the two lower levels of teacher-education controlled by the Department. The medium of instruction at the university level is now the regional language. Since the situational factors which had separated primary and secondary teacher-education are fast disappearing, there are now no reasons why all training programmes should not come under one authority, viz., the University

1. TRANSITIONAL MEASURES FOR RE-ORGANISATION OF CONTROL AND SUPERVISION

Since the pre-primary and primary institutions have not as yet restricted admission to the S. S. S. candidates, the Department will have to control them for some more years. For teachers of lower qualifications who are already in employment, institutional facilities for professional education will have to be provided for some more years to come, and the process of upgrading the pre-primary and primary teacher-education institutions to the collegiate level will take some time. Also, the qualifications of the staffs of the training institutions at the two lower levels cannot be upgraded at once to conform to university requirements. The upgrading must take place but its process will have to be phased over the next 5 to 10 years. In the transitional period, therefore, some organization which would bring the Education Department and Universities together for the formulation of policies and programmes in teacher-education, needs to be provided. The transfer of teacher-education to the control of the universities should gradually be facilitated through such co-operative thinking and through the establishment of Comprehensive Colleges of Education and Four Year Degree Courses in teacher-education. It will naturally take some years to develop such institutions in sufficient numbers and to gradually reduce the existing large proportion of fragmented

institutions. When a full integration of the different levels of teacher-education is achieved, it would be possible for the universities to take over the entire field. But in the meantime, the question of a close co-ordination between the work of the universities and the Department must be urgently tackled. At the secondary level, joint planning of teacher-education facilities has to be done on the basis of the teacher-requirements in the State. Today, a university recognizes and grants affiliation to a new College of Education without being quite clearly aware of the number and types of teachers required by the educational system. Graduation subjects of the candidates admitted to teachers' colleges have no relationship with teachershortages in certain school-subjects. So far, the Education Department has not fully shared with the universities even its knowledge and forecasts of total teacher requirements in different areas of the State. Consequently, it is found that the intake capacity of many teachers' colleges is wasted and there is no need-based approach towards the production of various subjectteachers.

Traditionally, teacher-education has been conducted as an activity subordinate to school education. But with the recent realization that the teacher is the key-person in the process of maintaining and improving the standards of school-education, the professional preparation of teachers has naturally to be considered as the most important activity and joint responsibility of the Education Department and Universities.

On the basis of all the foregoing considerations the idea of establishing a State Board of Teacher Education appears to be the most suitable at this juncture. It will constitute the interim organization which is urgently needed for promoting an integrated effort at re-planning and re-organizing all levels and types of teacher-education in the State. The Board, to begin with, should be established by an executive order of Government.

The functions and composition of the Board

- (a) Functions of the State Board of Teacher Education.—The functions of the State Board of Teacher Education to be established in the State of Maharashtra will be as follows:
 - (1) To prepare periodical plans and also detailed programmes for the development of teacher-education at the pre-primary, primary and secondary levels and to recommend them to Government/Universities as the case may be, for approval and adoption;
 - (2) to supervise the implementation of such teacher-education programmes as are approved and adopted by Government, from time to time;
 - (3) to prescribe standards of attainment in teacher-education and also to lay down the conditions for the recognition of teacher-training institutions at all levels;

- (4) to organise regular inspections of teacher-training institutions and to exercise supervision over their work;
- (5) to recommend teacher-training institutions at all levels for recognition by the Department;
- (6) to prepare the curricula and detailed syllabuses for pre-service and in-service training programmes for all categories of educational workers such as teachers, heads of institutions, supervisors, inspectors, teachereducators, and to recommend them to Government for approval and adoption;
- (7) to keep in touch with the investigations and research conducted in connection with teacher-education in order to utilize their results in continually improving the training programmes and also, to locate problems which require study and research and to ferer them to established research bodies;
- (8) to to institute Diplomas and Certificates in different areas of knowledge and professional skills for educational workers and also to award such certificates and diplomas under the auspices of the Education Department;
- (9) to co-ordinate the training programmes for teachers at the preprimary and primary levels with those at the secondary level, in collaboration with the Universities and similar agencies;
- (10) to prescribe (and to prepare, if necessary) text-books and hand-books and recommend reference books for all training courses controlled and supervised by the Board;
- (11) to conduct certificate and diploma examinations in pre-service as well as in-service training courses;
- (12) to institute procedures and to make necessary arrangements for the initial certification of teachers at all these levels and also for the periodical renewal of certification;
- (13) to recommend rules for grant-in-aid to pre-primary, primary, secondary and other special training institutions like those for physical education, etc.;
- (14) to frame rules and bye-laws and set up committees for the conduct of the work of the State Board of Teacher Education;
 - (15) to frame and approve the annual budget of the Board;
- (16) to organise and promote all such activities regarding teacher-education as Government may direct from time to time;
- (17) to take all such measures as would assist in formulating and implementing all such training programmes and other activities as come within the purview of the Board.

(b) Composition of the BoardTh	Board may be	established by
executive orders of Government and a	l members will	be nominated.
The composition will be as follows:		

	-	
1.	The Director of Education, Chairman (Ex-officio)	1
2.	The Director, State Institute of Education-Vice-Chair-	1
	man (Ex-officio)	
3.	The Deputy Director of Education in charge of Teacher	1
	Education Programmes (Ex-officio)	
4.	A full-time M.E.S., Class I, Officer (from the S.I.E.) -	1
	Secretary	
5.	Six persons from among Heads of Departments of Educa-	6
	tion, and Institutions of Secondary Teacher Training, to	
	represent each of the six Universities in the State	
6.	Three Principals of Primary Training Colleges (one from	3
	each region-Western Maharashtra, Marathwada and	
	Vidarbĥa)	
7.	A Principal of a pre-primary training institution	1
8.	Three representatives of teachers' organizations at the pre-	3
	primary, primary and secondary levels	
9.	Four educationists from Maharashtra-one each from the	4
	fields of pre-primary, primary, secondary and post-gra-	
	duate stages of teacher-education	
	CLASSIAL JUNEAU CO	

Total .. 21

सत्यमव जयत N. B.—The academic inspection of a teacher-training institution will be held by a panel of officials and non-officials to be appointed by the Board. The major objective of the inspection would be to give guidance to the teacher-educators for maintaining high standards in their work and for continuously improving the professional attainment and attitudes of the trainees in the institutions. The panel will make full report of the institution's work and indicate the lines on which the further development of the institution should be planned and guided. When a new training institution is proposed to be started, the Department will refer the matter first to the State Board which will appoint a panel of experts to examine the application of the promoters of the institution, carry out spot checks of the facilities available for starting it and make a detailed report to the State Board. The question of permission to start an institution will be decided by the Department in the light of the recommendations of the State Board.

2. Examination and Evaluation in Teacher-Training Courses

The existing system of examination consists of two parts, viz. (a) theory and (b) practical. Under (b), marks are given for the two exhibition lessons arranged at the end of training and for some of the work done throughout the training course such as practice lessons, essays, preparation of audio-visual aids, participation in community life, etc. The is of the old type and in the practical examination examination there is very little attempt to correlate the performance in the exhibition lessons with the work done throughout the course. It has been obvious both to teacher-educators and to the trainees that these examinations as conducted at present do not truly evaluate the effectiveness of training. It is, therefore, essential that the examination and evaluation of the teacher-education courses should be modernized as early as possible. This is all the more important, because the habits of examination absorbed by the teachers during their training period have a direct impact on the procedure of evaluation and examination which they follow in the case of their pupils in school. Unless the examinations in teacher-education are modernized it would be unrealistic to attempt to modernize school examinations. Another deficiency in the present system of examinations in teacher-education is the imbalance in the proportion of marks allocated to theory and practice. Moreover, inadequate attention is given to the assessment of competence in the content subjects both at the primary and secondary levels. In order to safeguard the quality of school-education, it is necessary to thoroughly revise the weightages given to educational theory, practice and content knowledge in the examination at the end of the teacher-education courses. A very urgent reform which is essential is the removal of rigidity from the methods of evaluating the practical work of the trainees. Since the exhibition lessons at the end of the training courses cannot provide any real indication of the skills developed by the candidate in managing different educational and behavioural problems in the class-room, there is no point in continuing the existing type of practical examination. Instead, evaluation of practical work should be based on a careful record of year's work. It would give a clear indication of the development of skills in teaching and school-management.

3. Entrance qualifications for teacher-education courses

In view of the constant expansion and deepening of the curricula of school-education at all stages, it is essential to secure the services of teachers who are academically well qualified and have a certain maturity of attitudes and understanding regarding the problems of school children. From the point of view of maturity, the age of admission to any course

of teacher-education should not be lower than 18 years. The upper age limit should be fixed at 30 years so that the profit derived by the educational system through the professional preparation of a teacher should last at least for 25 years. The lowest academic qualification for entrance to a course of teacher-education should be the S. S. C. For the different levels of teacher-education the prescribed entrance qualifications, and exceptions, if any, should be as follows:

- (i) Pre-Primary Stage.—The minimum qualification for entrance to pre-primary junior college should be the S.S.C. (Exceptions: While preparing teachers for Play-Centres and Balvadis in rural and tribal areas, it may not be possible to find candidates with the S.S.C. qualification. In this case, therefore, P.S.C. passed men and women with a sufficient maturity and understanding of children may be admitted. The courses designed for such candidates will be different from those for the S.S.C. holders and may be looked upon as a compromise which is essential to meet the existing needs of rural and tribal areas.)
- (ii) Primary Stage. -S.S.C. should be the lowest entrance qualification for primary training. Only S. S. C. holders may be recruited henceforth as primary teachers. Exception to the extent of 25 per cent. of women candidates may be made for the next three years, in view of the present difficulties in recruiting S. S. C. women teachers for rural schools. However, it should be made obligatory for the P.S.C. holders to take further school examinations externally and obtain the S. S. C. certificate within five years of their recruitment. These teachers should not be admitted to full-time training courses unless they pass the S. S. C. Examination. In order to enable them to function as teachers, four weeks' orientation course in the general techniques of teaching may be given immediately after recruitment and further periodical participation in in-service course should berequired of them. For recruitment as well as entrance to training, candidates with qualifications higher than the S. S. C. should always be preferred. It also appears necessary to insist that the candidates must have studied English and Mathematics for their S.S.C. Examination. To begin with, preference given only to such candidates. Since it is proposed to offer a common training course for teachers of Standards I to VII whether they are attached to a primary school or to a secondary school. there would be no distinction in the requirement of training qualifications of primary and secondary teachers of these classes. The Committee has felt that the staffling of tribal schools with teachers of lower qualifications and less maturity would result in a social injustice to tribal children. In the case of girls' schools also,

consideration ought to prevail and gradually the numbers of P.S.C. holders should disappear from the cadre of primary teachers.

(tii) Secondary Stage.—While admitting candidates to secondary training colleges, it should be insisted that only those who have graduated with subjects related to the secondary school curricula are accepted. If candidates with such major subjects as Philosophy, Sociology, Psychology, Politics, Economics, etc., apply for training, they may be admitted as a special case. However, such teachers should be required to take extra papers in any two school subjects, in addition to the normal five papers for their degree examination. These papers, however, may not be considered for deciding classes in the B.Ed. examination.

4. The Pattern of Training

- (i) Existing Patterns.—In all, five institutional patterns of general teacher-education are found to exist in Maharashtra, from the pro-primary to the graduate levels. These are (a) pre-primay training colleges, (b) primary training colleges for teachers of Standards (c) S.T.C. Institutes or S.T.C. classes for teachers of Standards V to VII attached to secondary schools, (d) T.D./Dip. T./D.Ed. departments under the universities, for middle-school, and (e) B.Ed. colleges with ordinary and Basic courses for training graduate teachers for secondary schools, and post-basic schools. At the primary level, the training is divided into two courses: the Junior and the Senior P.T.C. course. Candidates with the S.S.C. can finish the Junior P.T.C. course in one year, whereas P.S.C. candidates have to devote two years to it. The Senior P.T.C. course can be completed by S.S.C. candidates in two years. If an S.S.C. holder has already passed his Junior P.T.C. course, he can externally take the Senior P.T.C. examination, after a period of two years from the date of his passing the Junior Certificate examination.
- (ii) The Problem of overlap.—The multiplicity of the training courses and their overlapping character, particularly at the middle school level, not only causes a good deal of confusion in deciding the status and salary scales of teachers but also creates difficulties, in planning the programmes for their further professional growth. It is, therefore, very necessary that programmes of teacher-education from the pre-primary to the post-graduate level, should reflect an orderly picture of the different stages of school-education.

In order to achieve a logically graded pattern of teacher-education in the State, the ideal arrangement would be to make provision in the following four stages of education:

- 1. Pre-Primary,
- 2. Lower Primary (Standards I to IV),
- 3. Upper Primary or Lower Secondary (Standards V to VII),
- 4. Secondary (Standards VIII to XI).

In this arrangement, the primary stage is divided into two sections—lower and upper, because, though they fall under one nomenclature, viz., Primary, the psychological and other differences in the children belonging to each of these sections are so pronounced that it is necessary to adopt different methods of teaching them. In one section, the emphasis will be on organizing learning activities for the whole group in all subjects, while in the other it will be on the teaching of subjects as separate areas of learning.

But though such an arrangement is highly desirable, it may not be possible to adopt it in the near future, since it might give rise to various administrative problems which would be difficult to solve in view of the need to support the rapid expansion of primary and secondary education for some years to come.

In the circumstances, the following arrangement of teacher-education is suggested for acceptance as an interim measure:

- 1. Pre-primary,
- 2. Primary (Standards I to VII),
- 3. Secondary (Standards VIII to XI).

The Committee, however, recommends that the question of dividing the primary stage into two sections as already suggested, should be reviewed at the end of the Fourth Five-Year Plan and suitable reorganization of the pattern of teacher-education may be considered afresh.

If such clearly demarcated stages of training are adopted, the S.T.C./T.D./Dip., T. and D.Ed. Courses which attempt to prepare undergraduate teachers for the middle school stage, would be superfluous. There would still be some overlap in the training of pre-primary and primary teachers since the instructional techniques used for nursery-age children and children in Standards I and II, have much in common. However, this cannot be avoided for a few years to come. Till a separate provision can be made for extensive pre-school education, pre-primary teachers, who are likely to make better teachers for Standards I to II and perhaps

assist in reducing the wastage caused by the large drop-out of children from these classes, should be appointed to teach not only in nursery schools but in Standards I and II of primary schools, with advantage. The teachers trained in stage (2) would be able to teach all the primary classes inclusive of Standards V to VII, irrespective of whether the latter form the upper classes of primary schools or are attached as lower classes to secondary schools. Teachers trained at the B.Ed. level would be ready to teach in the secondary schools, and may teach at the higher secondary stage after obtaining academic post-graduate qualifications.

5. Nomenclature of Teacher-Education Institutions and other terminology

Since "teacher training" is a term which refers only to a drilling of the student-teacher in the skills of class-room instruction, it is highly desirable to replace it by the term "teacher-education". The institutions for teacher-education working at the secondary level and admitting graduate students should be called "colleges of education". Institutions which admit post-matriculation candidates should be called colleges of education". There would be two types of junior colleges. pre-primary, and primary. The usual term "trainee" should be invariably by "student-teacher". The changing view-point on the relationship between the colleges of education and the schools in which practical work of the student-teacher is arranged, makes it necessary that the schools should be in duced to participate and co-operate in the programmes of the colleges. Insted of the term "practising schools" preference should be given to "co-operating schools". It is, therefore, recommended that the new terminology and nomenclature related to teacher-education chould be brought into use immediately to emphasize the new view-points on the importance and significance of the programmes of teacher-education in the State.

6. Experimental Patterns.

It has been realized in the past few years that the separation of the different levels of teacher-education has not been conducive either to the effectiveness of training or to a better organization of teacher-education programmes. Every teacher, whether working in a pre-primary school or a secondary school needs to have a thorough orientation in child psychology, problems of education as a whole and such other matters as the essential background of the pupils and the national goals which education must serve. If teachers preparing for the different levels of school education can be brought together in one institution, their orientation in such areas of knowledge as are common to all levels of school

that of giving pre-service and in-service training through correspondence education. It need not be pointed out how expensive it is to establish institions and conduct teacher-education courses of a substantial duration with the assistance of adequate and well qualified staff. Institutional training is usually valued for the impact which the personality of the teachereducator can have on that of the student-teacher. But when expansion of education lowers the personal and academic qualities of teachereducators, the "personal-contact" ideal becomes meaningless. In many developing countries where the resources and staffs needed for institutional training courses are not available and where a large number of trained teachers have to be provided as quickly as possible, correspondence courses have been started. Many middle-east and African countries have evolved correspondence courses for clearing the back-log of untrained teachers and also for improving the subject knowledge of teachers already in service. When teacher-education courses are conducted by correspondence, arrangements for practice-teaching and laboratory work are made at a few well-equipped and well-staffed training institutions which are designated as "Consultation Centres". It is necessary to consider this new variant of teacher-education particularly for improving the subject knowledge of our teachers.

RECOMMENDATIONS

- 1. In order to integrate the teacher-education programmes at all levels, a State Board of Teacher Education should be established without delay.
- 2. The composition and functions of the State Board of Teacher Education should be as stated in Chapter IX, Section E.
- 3. The inspection of training institutions at all levels should be conducted by panels of educationists and administrators appointed by the State Board of Teacher Education from time to time and from area to area.
- 4. Examinations at the end of pre-primary and primary courses of teacher-education should be conducted by the State Board and it should award Diplomas and Certificates in Education, at the primary and pre-primary levels, respectively.
- 5. The examination and evaluation of teacher-education courses should be modernized and the practical examination held at present should be abolished.
- 6. The assessment of practical work should be done on the basis of a carefully maintained record which can be objectively evaluated and

would not be in the danger of subjective variation from institution to institution.

- 7. The proportion of weightage to theory and practice should be 60:40 at the secondary and primary levels, and 50:50 at the pre-primary level.
- 8. Examination in content subjects should be obligatory at the primary level.
- 9. Examination in content subjects should be obligatory for candidates at the secondary level, if they have graduated with non-school subjects like Economics, Politics, Sociology, Philosophy, Psychology, etc.
- 10. In the two-year courses, there should be a common examination in theory at the end of the first year and the subjects completed during the first year, should not appear again in the second year examination.
- 11. The minimum entrance qualification for full-fledged pre-primary and primary teacher-education programmes, should be the S.S.C.
- 12. The age of entrance to the teaching profession should not be below 18 and above 35 years.
- 13. For providing pre-primary teachers to rural and tribal areas, P.S.C. holders may be admitted to pre-primary training institutions, only as a transitional measure, till enough S.S.C. holders become available.
- 14. Special pre-service courses should be designed for the P.S.C. entrants to pre-primary training institutions, and these initial courses should be followed up by 2 or 3 additional short courses, before the final Certificate is awarded to a candidate.
- 15. After the completion of the initial pre-primary training course, the P.S.C. holders should be allowed to work in pre-primary schools only of the Balwadi type or in the play-centres in tribal areas.
- 16. The pattern of teacher-education in the State, should be as follows:
 - (a) Diploma in Education (Primary) course of two years' duration after S.S.C., for all teachers of Standards I to VII.
 - (b) Diploma in Education (Pre-primary) course of two years' duration, after S.S.C., for teachers of full-fledged pre-primary schools with eligibility to teach in Standards I and II of primary schools.
 - (c) Certificate in Education course of one year's duration, after S.S.C., with eligibility to teach only in pre-primary schools.

- (d) Lower Certificate in Education course of one year's duration for P.S.C. candidates at the pre-primary level, to be followed by two more courses of six months' duration each, within five years of the initial course. (If these teachers pass their S.S.C. examination within three years, after the initial course, the Certificate may be granted by waiving the two additional courses.)
- (e) Bachelor of Education Degree course of one year's duration for graduate teachers of secondary schools or graduate Head Masters of primary and pre-primary schools.
- 17. The nomenclature of training institutions should be changed to suit it to the new concept of teacher-education and to the rise in the entrance qualifications of candidates to the pre-primary and primary levels, as follows:
 - (a) Institutions for the training of graduates should be uniformally called "Colleges of Education" (प्रशिक्षण महाविद्यालय).
 - (b) Institutions for the training of pre-primary and primary teachers should be called "Junior Colleges of Education" (प्रशिक्षण विद्यालय).
- 18. A Comprehensive College of teacher-education, one for each Division of the State, should be established by Government, as an experimental measure.
- 19. The comprehensive college should integrate the pre-primary and primary or primary and secondary levels of training, to begin with.
- 20. A four-year integrated course of general and teacher-education may be tried out under one of the universities in the State, starting the integration only in the second year.
- 21. Correspondence courses, particularly for improving the subject knowledge of teachers at the primary and secondary levels should be started under the auspices of the State Institute of Education.

F. Physical and Material Conditions of Teachers' Colleges

In the studies recently carried out by the State Institute of Education, it was found that the physical and material conditions of Teachers' Colleges, particularly at the primary level, leave much to be desired. Most of the buildings are unsuitable for the purposes of training and the provisions of hostels is unsatisfactory, both in extent and quality. Since the environment of a teachers' college and the general atmosphere created by the buildings have a deep impact on the professional attitudes of the trainees, it is very

necessary to ensure that the training institutions are housed in buldings which offer adequate facilities for tuitional as well as residential purposes. By and large, the building situation is more satisfactory at the pre-primary and secondary levels than at the primary level. Most of the primary training colleges do not satisfy the minimum requirements laid down by the Education Department for the purposes of tuitional and hostel accommodation. The condition of the hostels in some cases is, to say the least, utterly deplorable. Suitable accommodation for library, laboratory, offices and staff-rooms does not exist in most of the institutions. It is found that the requirements for accommodation laid down several years ago have not been revised though the nature of the training programme has been changing. Moreover, the fact that training colleges are institutions at a higher level than schools seems to have been lost sight of while laying down the specifications for accommodation. No attempt has so far been made to prepare any functional type-plans for the buildings of teachers' colleges at any level. All these matters need very urgent attention in the interest of the efficient conduct of the training programmes. As regards the provision of equipment, the pre-primary and secondary teachers' colleges are much better off than the primary institutions in most of which science apparatus and laboratories do not exist. The small collection of books that goes under the name of library is hardly helpful either as reference to the staff or as assistance to the studies of the trainees. Classrooms are usually deficient in suitable furniture and the hostels have very meagre equipment in every respect. The equipment required for practical work and community services is also extremely scanty. The supply of audio-visual aids is inadequate and out-dated in most cases. This situation is probably due to the emphasis on the out-dated and formal methods of training and examination, which do not consider buildings and equipment as essential aids for making training effective. We strongly feel that unless the institutions for teacher-education are supplied with functionally suitable buildings and adequate equipment, any effort for the improvement of teacher-education would meet only with a small success.

RECOMMENDATIONS

(a) Buildings:

- 1. Since the environment of a teachers' college and its atmosphere make as much impact on the professional values, attitudes and skills of student-teachers as formal study and practice of education, the housing of teachers' colleges in sub-standard buildings and unsuitable surroundings should be strictly prohibited.
- 2. As it is essential to maintain the prestige of teachers' colleges, at all levels, as professional institutions of collegiate standards, fresh norms should

be evolved for their administrative, tuitional and residential buildings. The State Board of Teacher Education should undertake this task as an item of high priority.

- 3. Type plans for the buildings of teachers' college should be drawn up urgently in the light of the norms. In the construction of buildings, durability, simplicity and functional utility should be emphasized. In addition, scope should be left for probable additions and alterations to the buildings by broadly visualizing the probable development of teacher-education programmes in the next 15 years.
- 4. Criteria for the selection of site should also be evolved with due regard to the conditions essential for sanitation, water supply, recreational activities and other amenities required for conducting teacher-education programmes efficiently and for the probable future growth of the institute.
- 5. Economy should be effected in the provision of tuitional buildings by designing them for full utilization from morning to evening by several batches of students engaged in different aspects of the teacher-education programmes and also by teachers engaged in extension programmes.

(b) Furniture and Equipment:

- 6. Detailed norms should also be evolved by the State Board of Teacher-Education for functional and durable furniture and equipment for offices, class-rooms, libraries, laboratories, etc. Every item of furniture and equipment should contribute its quota to the effectiveness of the teacher-education programme and the prestige of the institutions.
- 7. Since the care and maintenance of buildings and equipment are essential for their effective use as also for reduction of costs on repairs and replacements, the staff necessary for care and maintenance should be provided to every institution.
- 8. As the furniture and equipment and teaching aids necessary for the teacher-education programme are not easily available in the market in sufficient quantities, the State Board of Teacher Education and Education Department should give urgent attention to measures required for adequate production of equipment and aids at low cost and their supply to the colleges.
- 9. The libraries of teachers' colleges should contain, besides books and journals on education, multiple copies of good books and journals of general interest including standard works of fiction.
- 10. Every College of Education should have the equipment required for all aspects of the teacher-education programme, i.e. (a) instructional aids, Na 5700—12

(b) AV equipment, (c) tools, implements and material for work-experience, (d) material for sports, games, physical education, (e) cultural programmes and community service, (f) hobby-club accessories, and (g) camping, hiking, scouting, etc.

G. CURRICULA FOR TEACHER EDUCATION

- (i) General Principles.—As already pointed out in section 8.3, the curricula for Teacher Education should be designed to harmonize with the objectives of school-education. They should also emphasize the changing roles and functions of the teacher who, in the past, was looked upon mainly as the custodian of the culture of a society and transmitter of its heritage to the next generation. This restricted concept of the functions of the teacher arises from the age-old practice of communities of all types to bring up their children according to the value-system, attitudes and beliefs of their forefathers. As an agent of formal education, the teacher was expected to shoulder the additional duties of imparting to the pupils such information as would enable them to know a little more about the world in which they live and to gather the skills essential for becoming its well-adjusted members. The new concept of the teachers' functions not only goes considerably beyond these old concepts but revokes them by expecting the teacher to be an instrument of social change. The teacher has now to extend his influence outside the four walls of the school to include not only the students' extramural activities but the total education of the community as a whole. The curricula for teacher-education, therefore, have to promote in the student-teachers enthusiasm for all the different areas of knowledge which would enable them to keep the standards of school education adequate for the needs of society, comparable to those in the schools of advanced societies and sufficiently dynamic to adjust to the rapid changes which are taking place in the fabric of the world community almost from year to year.
- (ii) Areas of Knowledge.—As already pointed out in section 8.4, the following areas of knowledge should necessarily form a part of every curriculum for Teacher-Education:
 - (1) Knowledge of how children and youth absorb formal and informal learning in the school, at home, and in the community.
 - (2) Knowledge of the objectives of school-education as related to the needs of the Indian society and to its relationships with the international communities, in an age of science and technology.
 - (3) Knowledge of the school as an institution and of the principles and skills involved in the organization of its managerial and instructional work, by best utilizing the available facilities, abilities and energies of teachers and pupils,

- (4) Knowledge of the curricular subjects in which instruction is to be imparted in the school and of the techniques suited to teaching.
- (5) Knowledge of the different roles of the teachers in the school and the community and the attitudes and skills which have to be acquired for playing the roles successfully.
- (6) Knowledge of the educational system and the professional conditions within which the teacher must operate.
- (7) Knowledge of how to utilize the resources and programmes which would lead to continuous professional growth.
- (iii) Work experience should necessarily find place in Teacher Education curriculum. It should have a considerable weightage in programmes of practical work and should be closely linked with the group life activities, community service and community organization programmes, and activities of the type of the National Fitness Corps, which the teacher would be required to promote among the pupils in the course of his day-to-day work in schools. It is recommended that the State Board of Teacher Education should appoint a Study Group of representatives of teacher-educators, and representatives of teachers' organizations, to work out a detailed but flexible programme of work experience (including manual labour), group life activites for youth, and community service right from the pre-school to the collegiate stage.
- (iv) Adoption of Ideas from Abroad.—The programmes of practical work which are to form a part of the teacher-education curricula, should adopt useful ideas from (a) the practices current in the Pedagogical Institutions of the USSR for devoloping the pedagogical abilities of teachers before, during and after the completion of their professional courses, (b) the block-teaching followed in the teacher-education programmes in the UK., (c) the system of Co-operating Schools favoured in the USA, (d) the group processes used in the planning and observation of lessons in the integrated four-year course in the rural institutes, (e) the field-study of educational problems and organization of extension services as incorporated in the fouryear courses, (f) joint planning of the total practical work programmes by the staffs of the colleges of education and the co-operating schools and (g) careful maintenance of the record of practical work as carried out in the regional colleges of education. It is recommended that the Study Group which the State Board of Teacher Education would be appointing for the preparation of curricula may be requested to make an exhaustive study of the suggestions outlined in section 8.5 to 8.8 and in section 8.11.
- (v) Selection and Development of Co-operating Schools.—The programme of extension services for the improvement of secondary and primary schools (particularly the secondary schools) which have gathered momentum in Na 5700—12a

the past few years, have demonstrated the value of a close contact between the college of education and schools working under ordinary conditions, for investing the programme of Teacher Education with a realism which is essential to overcome the resistance towards Teacher Education courses on the one hand and to provide insights to the staffs of the colleges for ensuring a dynamism in the Teacher Education programmes. This new type of contact has taken the teachers' colleges beyond the limits of the problems and needs of the practising schools working under their control and help them to understand the problems which the teachers are required to face and solve when they return to schools after their professional preparation. isolation of the colleges is thus reduced and the sympathetic co-operation of the ordinary schools has been forthcoming to assist with the practical work of the colleges. The time is now ripe for discarding the practice of attaching a laboratory school functioning under the artificial control of the college and to accept the practice of conducting all types of practical work in a realistic field-situation through the collaboration of the staffs of the Co-operating Schools. It would be necessary to proceed very carefully in adopting this new practice and attend to the details of such matters as criteria for the selection of Co-operating Schools, the channels of communication between the college, schools and inspectorate, definition and clarification of the roles of the co-operating institutions and individuals, adoption of suitable terminology in designating the various types of co-operative work and working realationships, determining the areas of joint responsibility of the college and the schools, indicating the limitations of the institutions, individuals and programmes.

We are convinced that the system of co-operating schools would allow for a healthy and creative interchange of ideas between the staffs of the college and the schools, render institutions of both types open to the acceptance of and experimentation with new ideas, ensure the necessary flexibility and problem-solving character in the practical work programmes of Teacher Similarly it would provide the staffs of the college and schools as well as student-teachers with opportunities of studying the school curriculum for evaluating its value for the achievement of the objectives of school education and also to envisage the direction in which changes should be effected in it to make it an efficient instrument for promoting social values, academic attainments, and the scientific spirit demanded by an age permeated by science and technology. We strongly recommend that a special status should be accorded by the Education Department to Co-operating Schools which would be selected on the basis of well-defined criteria. The staffs of such Co-operating Schools should be given a special orientation by the colleges of education (initially through a comprehensive programme arranged under the auspices of the State Board of Teacher Education) and

important projects of action research in curriculum construction, instructional techniques, use of A. V. aids, promotion of student-discipline and so on should be undertaken through the agency of the Co-operating Schools. These schools should be accepted as important associates of the college in planning and conducting extension service activities and in evolving instruments for assessing their impact on school improvement. The college of education should work out the equipment needs and other factors essential for conducting efficient practical work. The requirements should be communicated to the State Board of Teacher Education which would scrutinize them and arrange to obtain from Government the necessary funds for meeting them. An annual evaluation of the effectiveness of the co-operative programmes worked out by the college with different Co-operating Schools, should be jointly undertaken by the staffs of the institutions concerned and the student-teachers who carried out the practical work. Joint seminar-meetings of the staffs of the college and the Co-operating Schools should be held at the commencement and conclusion of every term during the course. We do not favour the practice of giving honoraria to the staffs of schools which assist the college in conducting its practical work programmes. Instead, we strongly recommend that the time and energy devoted by the teachers of the Co-operating Schools to the practical programme of the college should figure in their total workload according to a specified weightage, and the staffing pattern of a Co-operating School may be specially worked out on this basis. Such a measure would prevent complaints of overwork for the staffs of the Co-operating Schools and the increase in their numbers achieved through a revised staffing pattern would enable the schools to conduct many an action research project. It should be incumbent on the Co-operating Schools to maintain certain standards in the qualifications of the staffs, organization of school work, and student discipline. Apart from these features, which should be in evidence in each and every ordinary school, no special provisions should be made in the management and programmes of the Co-operating Schools in order to ensure that they in their turn do not become artificial 'practising schools' far removed from the real conditions in other normally conducted schools. Since the academic and professional competence of the staff of Co-operating Schools has to be fairly above the average, we recommend that the system should begin to be followed in all its details at the secondary level and gradually introduced at the primary and pre-primary levels.

(vi) Co-operating Schools for Primary and Pre-Primary Training Colleges.—At the primary level, we strongly recommend a similar practice of Co-operating Schools but with this difference that in order to provide for the student-teachers the variety of experience they need in managing a different age-group in different types of schools (single-teacher, incomplete and full-fledged primary schools) and a wide range of classes, the selection of

Co-operating Schools should be based on criteria which are suitable for the needs of primary teacher education. In order to narrow the gap between techniques of pre-primary education and primary education we strongly recommend some practical experience for primary student-teachers in pre-primary schools/Balvadis/Play-Centres and in Standards I and II for student-teachers in pre-primary colleges of education. The nature of relationship between the college and the Co-operating Schools at the primary and pre-primary levels will have to be somewhat different from that at the secondary level and would need to be defined and clarified in detail to prevent an unhelpful imitation of the programmes at the secondary level.

(vii) Experience in Vertical Integration.—In order to remove the compartmentalisation of the various school-stages as well as collegiate education, it is essential to promote programmes of a Vertical Integration of institutions at all levels in order to combine them together in activities designed to promote an integrated development of all through mutual assistance. In a large country like ours where the growth of educational facilities have assumed almost explosive proportion, a shortage of qualified supervisory personnel is bound to be keenly experienced for several years to come and steps must be taken without delay to find out substitute ways and means for the maintenance of standards in educational institutions. It is interesting to remember that when the number of schools for girls increased in Poona in the year 1910 and a regular four-year curriculum was framed for them, the Lady Superintendent of the Training College for Women was entrusted with the supervision and inspection of those schools in order to ensuring them good standards of work and also to relate the work of the training college to the newly framed curriculum. This practice of placing girls' schools under the supervision of women's training colleges had to be followed for a long time till women-inspectorates became available and the number of schools also grew to such an extent that the training college, with its co-ordinate programmes, was unable to supervise them. This example illustrates two important points viz. (a) utilization of available personnel for new functions related to their existing work, and (b) the legitimacy of expecting a teacher-education institution to supervise and maintain standards of school education. In a scheme of vertical integration of educational institutions, the personnel at the higher level would be required to guide and supervise them at the lower level. The intention would be to utilize higher academic capabilities for the improvement of the staff at each preceding level. For example, an Arts and Science College or a teachers' college would undertake to help the staffs of the nearby secondary schools to improve their academic knowledge and professional skills. The secondary schools should assist the full-grade primary schools which in their turn would exercise supervision over the staffs of the incomplete schools and help them to maintain good standards. Such an interlinking of all the

levels of education would yield rich dividends in terms of availability of a large guiding and supervising personnel as also a co-ordinated development of education as a whole. The college of education at every level must undertake to prepare its students to understand and participate in such integrated programmes.

(viii) Inculcation of values.—Very little seems to be done at present, in any programme of teacher education, to heighten the awareness of the student-teachers of the personal, social, religious, aesthetic and political values appropriate for the achievement of national goals and for feeling secure in a rapidly changing world. Attempts to inculcate values through direct instruction have always failed. Values can be percieved and practised on the basis of intellectual conviction, only when they are discussed in the context of day-to-day happenings and the traditions and beliefs of society. Student-teachers need to be guided to percieve, analyse and integrate the fundamental human values as well as values underlining national objectives. Everyday situations in the schools, colleges, country and the world can be taken up by them in seminar-discussions and all their pros and cons thrashed out to discover their relationships with accepted values. Practice in holding such discussions in relation to concrete day-to-day instances from the experience of the pupils needs to be given to student-teachers in order to enable them to carry out their highest professional function, that of agents who should promote desirable social change and emotional security in their country. It is, therefore, recommended that the Study-Group entrusted with the remodelling of teacher education curricula should give close attention to this feature of practical work. सत्यमव जयत

RECOMMENDATIONS

- 1. It is recommended that teacher-education curricula, at all levels, should be immediately revised with the help of a special committee to be appointed by the State Board of Teacher Education. Experts in curriculum construction should be attached to the Committee. Their services may be obtained from the NCERT. The Committee should be requested to construct the curricula for all levels of general teacher-education, through the co-ordinated efforts of "working groups" each of which would be responsible for one level.
- 2. The curricula should be based on the new directions indicated in Sections 8.3, 8.4, 8.5, 8.8, and 8.11 and may utilize the indicative outlines given in Appendix VII of this Report.
- 3. Work experience, including community service and activities of the NFC, should form a substantial part of the practical work at the secondary and primary levels.

- 4. Preparation of a large variety of teaching-aids and apparatus should also be an important element which would relate craft-work and art directly with modern instructional techniques.
- 5. Experience should also be given to teachers under training in programmes of educational extension.
- 6. Guided, as also free, discussions in the form of properly planned and organised seminars and symposia should tackle the fundamental problems of education in the country to analyze them in terms of social and economic values. This should be an obligatory item of practical work.
- 7. At the primary and secondary levels, the conventional arrangement of attaching practising schools to a teachers' college, though desirable when schools were few and their character uniform, is now unsuitable for realistic problem-solving in instructional techniques. The arrangement should, therefore, be discontinued.
- 8. Henceforth, practical work should be arranged in several selected co-operating schools,
- 9. The practice of arranging stray-lessons should be replaced by "block-teaching" of 3 to 4 weeks per student per year in a given school.
- 10. "Block-teaching" should include class-room instruction, correction of exercises, administration of new type tests, participation in the organization and implementation of all school activities, and assistance in administrative tasks.
- 11. At the pre-primary levels, where the school-units, as also the number of schools available for practical work, are still very small, the convention of attaching a practising school to the college may continue for a few years more. But it should be replaced by the system of co-operating schools, as soon as circumstances permit. Wherever possible, field visits should be organized for observing different types of pre-primary schools and their problems.
- 12. The State Board of Teacher Education should work out detailed criteria for the selection of co-operating schools at all levels.
- 13. The status of co-operating schools should be differentiated from that of other schools.
- 14. The work done by the co-operating teachers in connection with the teacher-education programmes, should figure in their total work-load and the staffing pattern of co-operating schools should be readjusted from this view point.
- 15. A special equipment grant should be given to the co-operating schools for meeting the needs of the practical work to be done on behalf of the Colleges.

16. The details of the working relationship between the college, the cooperating schools, and inspecting staff should be defined carefully by the State Board of Teacher Education in consultation with all the three agencies involved in this programme.

H. TECHNIQUES OF TEACHER EDUCATION

The techniques of conducting practical work are implicit in suggestions for the organization of practical work, given in the preceding As regards instruction in content subjects, theory of and pedagogical practice, the techniques of instruction followed colleges of education must prove suitable for professionally motivated adult students. Many of these are indicated in section 8.38. We strongly recommend the curtailment of long lectures and discontinuance dictation of comprehensive notes in the class-room. These methods are not only unhelpful for imparting information but they do a positive harm to the cause of school education by encouraging in the student-teachers passivity of thought, dependence on pre-digested doses of knowledge, disconnected thinking and discussions with fellow-students. They student-teachers into habits of cramming for getting through examination and suppress the desire and ability to discover new knowledge on their own. The passive habits of going through curriculum from the point of view of passing at the examination is carried over by them to school and transmitted to their pupils. The objective of even the best designed school curriculum can be completely negatived if such methods of teaching and learning are followed in school. As pointed out time and again by many educationists "education can only be learnt and not taught". We would advise the staffs of teachers' colleges to keep this maxim constantly before their eyes for adopting techniques of instruction which lead more to learning by the student-teachers than to teaching by the college staff.

Imaginative teacher-educators have reported to the Committee that practically all topics included under "Education" can be given to the student-teachers for self-study and seminar discussions. Some topics easily lend themselves to lecture-discussions and this method becomes useful when the teacher-educator has to tackle large groups. However, it has been found that discussions organized among groups of 15 to 20 students become very stimulating and are particularly useful for clarifying the conceptual content of the teacher-education course. Therefore, discussion method appears to be extremely useful for enabling the students not only to clearly understand educational concepts but to apply them to practical situations in the school. It is only when such practical use is made of the theory of education that the students can really master the foundation subjects like

psychology, philosophy and sociology of education. Together with the discussion, opportunities need to be given to the student-teachers to observe child behaviour and problem situations in the school. Case studies connected with field observation would be extremely useful in helping the students to apply their theoretical knowledge in the solution of day to day problems which they may have to face later in the course of their work as fulfledged teachers.

For the content subject and also for the statistical and experimental. part of educational psychology, we would recommend the utilization of programmed instruction with the help of programmed text-books or even cyclostyled programmed material. Since it would take some time prepare such material in our country and for it to be available on a wide-scale for use in colleges of education, we recommend State Institute of Education should undertake experimental designing programmed instruction particularly for content subjects, assistance from the Department of Psychological Foundations (NCERT), as early as possible. We feel that the technique of programmed instruction should first be tried out in the study of content subjects in the courses for primary teacher-education, and other areas in the theoretical part of the courses should be attended to gradually. It is essential to organise seminars of staffs of teachers' colleges to discuss new techniques of instruction. types of methods suggested for putting across the teacher-education courses should be demonstrated in such a seminar with the full praticipation of teacher-educators. We recommend that this activity should be undertaken by the State Institute of Education as early as possible in 1966-67, even before the preparation of new curricula for teacher-education, since such techniques need to be used even with the existing curricula. It is recommended that the State Board of Teacher Education should work out a detailed programme for encouraging and assisting experimental work in programmed instruction.

In order to acquaint the student-teachers with the proper use of instructional aids, it is essential to provide such equipment as projection and non-projection aids during lecture-demonstrations, lecture-discussions. seminar-groups, etc. A work-room in which student-teachers experiment with and prepare different types of audio-visual aids for their self-study and also for school instruction should be provided in college of education. The activities of the work-room should be linked up with work experience, experimental psychology, science laboratory social-study museums and so on. The use and preparation of a variety of instructional aids would make teacher-education courses and practical work in schools lively and educationally effective.

RECOMMENDATIONS

- 1. The techniques of teacher education should be suitable for professionally motivated adult students.
- 2. Lectures should be arranged only when topics of a descriptive nature are to be dealt with or when a large group is essential for rousing students' emotions, in the cause of education.
- 3. Every topic in the syllabus, which requires a clear comprehension and further development of concepts, should be tackled through group discussions.
- 4. Since a group of 15 to 20 persons is found to be more stimulating than smaller or larger groups, it is recommended that the schedules of discussions should be worked out on the basis of this number.
- 5. Increasing use should be made of the Case-Study method for elucidating the educational implications of the principles in the philosophical sociological and psychological foundations of education.
- 6. Similar techniques, combined with field observation should be used in the study of school management and organization.
- 7. The use of programmed material should be encouraged for studying content subjects and also some aspects of educational psychology.
- 8. Self-study methods should be encouraged by requiring the students to carry out reading assignments, group-discussions, consultations with resource persons, use of laboratory, and similar other measures.
- 9. Increasing use of film-strips, films and the tape-recorder should be planned for the study of as many units of theory and practice as possible.
- 10. The techniques suggested in section 8.8 should be tried out, particularly at the secondary and primary levels.
- 11. The student-teachers should be acquainted with such emerging methods of instruction, suited both to adults and children, as team-teaching, combination of film-media with the use of text-books, combination of tape-recorder with film-strips, use of closed-circuit television, instructional machines, and so on.

I. QUALITY OF TEACHER EDUCATORS

To a very large extent the quality of class-room teachers depends upon the quality of their educators. Any attempt for the improvement of the quality of teacher-education will, therefore, fall short of its objective if it does not consider the raising of the quality of teacher-educators at every level. This fundamental need was recognized by the Education Department nearly 100 years ago, when it used to arrange lectures by R. R. G.

Bhandarkar and Krishnashastri Chiplunkar, for the benefit of the primary teachers under training in the Vernacular College in Poona. educational expansion, however, a tendency to tolerate teacher-educators of low qualifications has been in evidence and it does not augur well for the quality of education. It is, therefore, essential to concentrate on the problem of providing highly qualified teacher-educators for all levels of training. Further, if teacher-education is gradually to come under the purview of universities, and if education is to be treated as an important discipline among social sciences, the need for insisting on teacher-educators of a high academic competence becomes very compelling. So far, the progress of pre-primary and primary teacher-education courses towards the university level has been extremely slow because they have been mostly admitting non-matriculates. In recent years, the availability of S.S.C. holders has increased their admission to these two levels. The doubling of output of S. S. C. holders at an interval of every five years, is an apparent fact and in a year or so it would be entirely unnecessary to think of training or employing non-matriculates, to teach in pre-primary and primary schools. The rising qualifications of entrants to pre-primary and primary training institutions now require that their teacher-educators must be much better qualified than they are at present. The pre-primary and primary training institutions will soon be equated with Junior Colleges and the qualifications required by the universities in institutions of this level will have to be fulfilled by the teachereducators. It need not be emphasized that the raising of the qualifications of teacher-educators would naturally imply the provision of higher scales of salaries for them in accordance with the university regulations. However, this question is not exactly within the purview of the committee and we would, therefore, recommend that teacher-educators at all levels, holding qualifications required for collegiate teachers at different levels, should receive the same salaries as the teachers of the same rank in other collegiate institutions. In case the work-load of teacher-educators has to exceed the limits laid down under university regulations, special allowances should be provided to compensate for the extra work-load.

At the secondary level, the staff of teachers' colleges should be categorized as Lecturers, Readers/Assistant Professors, and Professors as in other collegiate institutions. Besides, since the supervision of practical work is a very important aspect in teacher-education, it should be allotted only to teacher-educators holding high qualifications and substantial experience in solving the problems of class-teaching and school organization. The existing practice of arranging for the supervision of lessons by appointing Masters of Methods with low qualifications and inadequate experience, needs to be abolished forthwith. In the preparation of teacher-educators it is unhelpful to make much distinction between the teacher-educators of secondary, primary and

pre-primary levels. The basic qualifications of all of them should gradually be brought to the same level. In addition, they should be specialists in the problems of the school level for which they are expected to guide the student-teachers. Teacher-educators should, in future, be required to hold special diplomas or certificates of specialization in the procedures and problems of secondary/primary/pre-primary level, as the case may be. The qualifications of the Principals of Teachers' Colleges should be higher than those of the teacher-educators and they should be competent to guide experimental work and research which may be undertaken by the staff and the students of the college or by the co-operating schools. Since it is essential to very clearly state the academic and professional qualifications which are desirable in teacher-educators, we are making below detailed recommendations on this topic:

- (a) Academic and Professional Qualifications .--
- 1. The qualifications of teacher-educators at all levels must be increased in view of the increasing qualifications of the entrants to the teaching profession.
- 2. Since the pre-primary and primary training institutions will have to be equated with intermediate or junior colleges, the basis qualifications of their teacher-educators should be the same as those of lecturers in the colleges of Arts and Science at the same level.
- 3. At the secondary level, the staff should be categorised into Lecturers, Readers/Asstt. Professors, Professors, as in other collegiate institutions.
- 4. The practice of appointing Masters of Methods with only the B.A., B.Ed., or B.Sc., B.Ed. qualifications simply for observing lessons should be abolished as it reduces the standards of teachers education.
- 5. As educators in professional institutions, all teacher-educators should hold special qualifications for working as expert guides to student-teachers at the (a) secondary, (b) primary and (c) pre-primary level, as the case may be.
- 6. Every teacher-educator at the secondary and primary levels should hold a post-graduate qualification in education.
- 7. At the pre-primary level, this requirement should come into force as soon as the training facilities at that level develop sufficiently.
- 8. The qualifications of Principals of teachers' colleges should be higher than those of their staff.
- 9. The following scheme of staffing in the secondary, primary and preprimary levels respectively, is strongly recommended:

MINIMUM QUALIFICATIONS

Secondary Level.-

- (1) Lectures
 - (i) M.A./M.Sc./M.Com. II Class or M.A./M.Sc./M.Com. and B.A./B.Sc./B.Com. II Class
 - (ii) B.T./B.Ed. I Class.
 - (iii) M.Ed. II Class.
 - (iv) Two years' experience of teaching in school.

A lecturer after five years of satisfactory service or a Head Master of a secondary school with 5 years' Experience will be eligible for being appointed as an Assistant Professor/Reader.

- (2) Professors
 - (i) M.A./M.Sc./M.Com. II Class.
 - (ii) B.T./B.Ed. I Class.
 - (iii) M.Ed. II (or M.Ed. with Research)

 Preference would be given to persons holding Ph. D. (Ed.). degree in addition to qualifications mentioned in (i), (ii) and (iii) above.
 - (iv) Seven years' experience as lecturer.

or

Two Years' experience as Assistant Professor/Reader.

- (3) Professor for post-graduate teaching (By papers)
 - (i) M.A./M.Sc./M.Com. II Class.
 - (ii) B.T./B.Ed. I Class.
 - (iii) M.Ed. II (or M.Ed. by Research).

 Preference would be given to persons holding Ph.D. Edn.), degree in addition to the Qualifications mentioned in (i), (ii) and (iii) above.
 - (iv) Ten years' experience as Lecturer or three years' experience as Professor.
- (4) Professor for Post-Graduate Teaching (Research)
 - (i) M.A./M.Sc./M.Com. II Class.
 - (ii) B.T./B.Ed. I Class.
 - (iii) M.Ed. (Research) or M.Ed. (Papers) II Class.
 - (iv) Ph.D. (Education), or Acknowledged published Research work.
 - (v) Experience as Professor for 3 years.

Note.—Notwithstanding what is stated above, in exceptional cases, eminent scholars, who having extensive and high quality research work to their credit, may be recognised as Post-Graduate Professors (By Research).

(5) Principal—The same qualifications as those for a Post-Graduate Professor (by Papers or by Research) and in addition 3 years' administrative experience as Vice-Principal of the College or Head-Master of a Secondary School.

Note.—In the case of persons possessing qualifications from foreign universities the equivalence will be determined by Academic Councils of concerned universities or the Teacher Education Board of Maharashtra Government on the recommendations of the Board of Studies of the University concerned.

Primary Level

There will be only two cadres-Lecturers and the Principal:

Lecturers

- (i) B.A./B.Sc. (II Class).
- (ii) B.T./B.Ed. II Class.
- (iii) M.Ed. II Class.
- (iv) Five Years' experience of teaching in a school or schools preferably Stds. I to IX.

Principal

- (i) M.A./M.Sc. or
 - B.A./B.Sc. II Class.
- (ii) B.Ed. II Class.
- (iii) M.Ed. II Class (or by Research).
- (iv) Five years' experience as lecturer or Five years' experience of teaching in a secondary school.

Note.—Special teachers for Physical Education, Craft-Work, Drawing and Music in Junior Colleges of Education and Colleges of Education should have suitable qualifications and experience in their fields. The adequacy of these should be determined by the Principal of the College in consultation with the Board of Teacher Education (in the case of Junior Colleges of Education) and the university concerned (in the case of colleges of Education).

Pre-Primary Level

(1) Lecturers

- (i) B.A./B.Sc. 11 Class.
- (ii) B.T./B.Ed. II Class.
- (iii) Diploma or Certificate in the Teaching of Pre-Primary Classes.
- (iv) Experience of teaching in a pre-primary school or in a primary school (preferably standards I to II) for three years.

(2) Principal

- (b) Status, Salary and Conditions of Work of Teacher-Educators
- 10. The status, and salary-scales of teacher-educators should be in accordance with university regulations, even though the colleges at the primary and pre-primary levels may continue to work under the control of the Education Department. The teacher-educators in Government institutions should belong to the Collegiate Branch in Maharashtra Educational Service.
- 11. The top posts in Government Colleges of Education, such as professors and principals may occasionally be filled by selected officers of outstanding academic merit from the Administrative Branch if they so desire, to enable them to refresh their knowledge of education devoting short periods of their service to teaching and research in education. Professors and Principals from Government Colleges of Education may be similarly allowed to work in the Administrative Branch, only if they show administrative acumen and are also ready to undergo orientation in administration.
- 12. The staffing pattern of the colleges of Education should not be based on the pupil-teacher ratio as at present but on the number of specialists required for the total theoretical and practical curriculum. Further, the curriculum should be spelt out in terms of the number of hours required for its implementation and the staffing pattern should ultimately be decided on three criteria: (i) categories of specialists required for the curriculum (ii) the hours of attendance and work per week to be prescribed for each and (iii) the size of the staff should determine the size of the student-body on the basis of a reasonable per capita expenditure to be allowed per student.
- 13. It is strongly recommended that clear-cut service conditions, defining workloads, salary-scales, etc. should be laid down for staffs of the Junior Colleges of Education at the primary and pre-primary levels.
- 14. The staffs of the Colleges of Education, at all levels, should be provided with conditions of work which would enable them to improve their competence, contribute to the growth of education through research and experimentation, utilize an atmosphere of academic freedom for evolving new directions in education, and take the benefit of opportunities such as conferences, seminars, etc., which would bring them into contact with other teacher-educators as also with educators of repute from other disciplines.
- 15. The antiquated regulations which hinder such academic participation by the staffs of Government Colleges, should be replaced by regulations which would help increase their academic efficiency.

J. DURATION OF TEACHER EDUCATION COURSES

Time is an important element, particularly in the process of inculcation of values and modifications of attitudes. If Teacher Education is not merely to mean the imparting of some subject-knowledge and furnishing the teacher with a few tricks of his trade, the duration of Teacher Education courses must increase. At present, the duration of the secondary training course is one academic year. But after deducting vacations, time devoted to practical examinations, co-curricular activities, etc., the number of total working days utilised for the study of theory and practice of teaching actually amount to about 150 only. Though pre-service training is expected mainly to lay down the foundation of a professional career and is to be supported later by courses of in-service education, it would have to be admitted that not much foundation can be laid down satisfactorily in the working time made available in the secondary training courses. However, considering the financial difficulties which secondary teachers have to face during their training period and also in view of the necessity of supplying a large number of graduate teachers to our schools as early as possible, it would not be possible to increase the duration of the training courses at the secondary level for a few years to come. At the pre-primary and primary levels, the duration of the training courses is two years for the P.S.C. passed candidates and one year for those who hold the secondary school certificate. At these levels also the number of working days are most inadequate. A large number of days at the primary level is taken up by examinations as well as celebration of festivals. Besides, the trainees are found to take frequent leave in order to visit their native places. When all this is deducted from the number of days of attendance prescribed at the primary level, which is only 130 per year, it becomes obvious that no substantial training can be given in this short period nor can proper attitudes be developed in the trainees. Considering the trends in evidence all over the world, it is absolutely essential to increase the duration of training at the primary level at least to two years after the S. S. C. It is useful to remember that this recommedation was first made as far back as 1944 in the Sargent Plan and has since been repeated time and again by various committees and Study Groups of experts on primary teacher training, both at the state and central levels. It is now high time to accept it in the interest of the quality of primary education. At the pre-primary level, there are several difficulties in increasing the duration of the courses. Moreover, pre-primary teachers need not necessarily be given intensive courses in content-knowledge and one year should normally be adequate to give them the initial skills required in conducting pre-primary schools and Balvadis. If the initial courses are later supplemented by frequent in-service courses, the question of increasing the duration of pre-primary training can be postponed to a later date.

RECOMMENDATIONS

- 1. Since Teacher Education courses include intensive theoretical and practical work and have also to build up professional values and attitudes in the student-teachers, their duration should be sufficiently long for implementing the total programme effectively.
- 2. In the present circumstances, however, we recommend that the following duration should be adopted for courses at different levels of teacher-education: (a) Two years for the post—S. S. C. pre-primary course combined with preparation to teach Stds. I and II. (b) Initial training of one year to be followed by two short courses of 6 months each within a period of 5 years, for P. S. C. candidates at the pre-primary level, (c) Two years at the primary level, uniformly, for teachers of Stds. I to VII (only S. S. C. candidates to be admitted in future) and (d) One year at the secondary level, for graduate candidates.
- 3. We, however, strongly recommend that the duration of the course at the secondary stage, for graduates, should be increased to two years as early as possible.
- 4. One year of training should mean not less than 240 working days per year exclusive of examination days. Vacations and holidays should be curtailed for this purpose.
- 5. Full attendance should be required from every candidate at every level for the period of 240 days, with a provision of casual leave only, to meet emergency needs.
- 6. A working day should mean full six hours of work for the student, excluding recesses and a half working day should mean full four hours of work.

K. OPPORTUNITIES FOR PROFESSIONAL DEVELOPMENT

An elaborate statement on the provision of different types of opportunities for professional development has been made in Chapter VII. The provision of inservice education of teachers has not figured as an item of our educational plans. Recently, some schemes of extension education formulated by the Government of India have been conducted in a few places. Occasional refresher courses have been provided by the state for primary teachers, for their orientation towards the basic ideology and in the methods of teaching English. Such efforts have been sporadic and no systematic formulation of plans for the professional development of not only teachers but also of any other educational personnel has been undertaken. Since education is undergoing a very rapid change both in its objectives and procedures it would be essential to include in future a fairly large financial provision on programmes of in-service education.

In this area of re-training and extension a careful assessment will have to be made of the felt needs of the personnel in each sector of education in relation to their existing professional problems and further professional development. We feel that studies of the kind undertaken by the State Institute of Education for finding out the in-service training needs of the primary teachers under the Poona Municipal Corporation, Educational Extension Officers under the Zilla Parishads, and teacher-educators in primary training colleges, are required in all sectors of education for planning effective in-service courses. In-service education of adult personnel in any profession requires to be handled by a specially trained cadre of instrutiors. If this is not done, it is likely to become either a repetition or mere replica of pre-service courses. We, therefore, recommend that experimental training courses in the preparation of instructors in the in-service programme should be undertaken immediately, under the auspices of the Education Department. These may be organized in the State Institute of Education with assistance from a large number of resource persons. Their course content should be drawn up after a study of the courses available for similar instructors in business and industries. Gradually, a cell may be built up in the State Institute of Education for planning and co-ordinating all types of in-service programmes for the educational personnel in the State and, to begin with, this work may be enstrusted to the cell to be created State Institute for the organization and co-ordination of the extension service programme. It should achieve close co-ordination with the planning unit of the Directorate and provide the necessary courses on the basis of the extent of re-training requirements indicated by the planning unit,

In the past few years, teachers' organizations and headmasters' associations in the State have been getting better organized not only for securing better service conditions but also for conducting academic programmes for the professional growth of their members. This is a happy trend and now that these bodies are ready to participate in programmes for improving the standards of education, it would be a great advantage to seek their co-operation in organizing both pre-service and in-service teacher-education programmes. It would be useful to hold frequent consultations with the teachers and headmasters, through the office-bearers of their organizations, on the efficacy of the pre-service programmes and obtain their assistance in evaluating and modifying them from time to time. Outstanding teachers and headmasters, recommended by the organizations, could be invited to assist with the practical training as also with the experimental work in teaching techniques to be normally organized in pre-service courses.

However, the organizations can make their best contribution in the programmes for the in-service education of teachers. They can undertake to contribute their share in the following ways:

- (1) Forming subject-teacher committees and arranging programmes for improving content-knowledge of teachers;
 - (2) Helping the correspondence courses:
- (3) Forming groups for discussing and evolving suitable methods of instruction;
 - (4) Helping in action researches undertaken by Teachers' Colleges;
- (5) Co-operating with Extension Services Departments and Teachers' Colleges, in planning and conducting extension services;
 - (6) Helping the State Inspectorate in its work of inspection;
- (7) Offering suggestions for improvement of the school curriculum and text-books;
- (8) Planning in co-operation with Colleges of Education, in-service education of Heads of Schools;
- (9) Holding seminars, workshops, conferences, etc., for discussing various problems in the field of teacher-education;
 - (10) Organizing exhibitions of teaching aids and pupils' work;
- (11) Publications useful to teachers such as newsletters, periodicals, seminar and workshop reports and digests of researches in the fields of methods, procedures, equipment, teaching aids, etc.

The major difficulty experienced by these organizations is: (a) lack of enough funds for undertaking in-service activities and (b) lack of permanent staff who can be entrusted with different types of correspondence and arrangements for organizing the various activities. In order to remove these difficulties and to encourage the teachers' organizations to turn their attention increasingly to academic activities, it is essential for the Department to grant them recognition and some financial aid for employing full-time office staff for office-work and meeting some of the expenditure on in-service programmes. Contacting the office-bearers of teachers' and headmasters' organizations and exploring the avenues of enlisting their assistance in the improvement of teacher-education programme, should be one of the first tasks to be undertaken by the State Board of Teacher Education.

RECOMMENDATIONS

1. Since pre-service professional education serves only as a process of induction into a job, it is absolutely essential to follow it up by programmes of in-service education.

- 2. At the collegiate level, apprenticeship should be made obligatory for junior lecturers and foundation courses in Education and Educational Techniques at the collegiate level should be provided intensively for all staffs of colleges.
- 3. For the maintence of efficiency, participation in in-service education programmes should be made obligatory for teachers, headmasters, teacher-educators, principals, inspectors, and administrators, at all levels.
- 4. In-service education programmes should be directed to assist the readjustment of every functionary in the educational system, to the changing character of his roles and functions.
- 5. The felt needs of the personnel at each level should invariably be assessed while devising in-service education programmes.
- 6. In-service education programme should be directed towards (a) general professional developmen tand (b) specialization in any aspect of professional work.
- 7. The organization of in-service education should take three forms: (a) institutional courses like Summer Institutes and Workshops; (b) field programmes like conferences, seminars, study-circules; (c) on-the-job education through extension services.
- 8. Every College of Education should be required to include in its total programme, both pre-service and in-service education of teachers.
- 9. Extension services should be built into the field-work programmes of every College of Education and this factor should be reflected into the norms to be worked out for the provision of staff, plant and material facilities.
- 10. The organization of in-service education programmes should come within the purview of the State Board of Teacher Education.
- 11. Every agency connected with the professional development of teachers should participate in the planning and organization of the programmes of in-service education. This participation should be required from the Education Department (through the State Institute of Education), professional organizations of teachers, headmasters and teachereducators, colleges of education, relevant university departments, and other official and non-official institutions and organizations.
- 12. In preparing the criteria for granting recognition and financial assistance to professional organizations, their active contribution to the in-service education programmes should constitute a major criterion.

- 13. Since pre-primary teachers will take some time to be well-organized as a professional group, the programmes for their in-service education should be instituted mainly through the agency of pre-primary teachers' colleges. These may take the form of (a) institutional programmes, (b) field programmes, (c) extension services for on-the-job education,
- 14. For the in-service education of primary teachers whose numbers are very large, institutional courses should be provided in special in-service education institutions to be established throughout the State at the rate of one per district. Their programmes and staffling pattern should be developed as indicated in Section 6·10.
- 15. The in-service education institutions at the primary level should conduct separate courses for teachers and headmasters of primary schools, throughout the year.
- 16. All institutions specially established for in-service education should be declared as Non-Vacation Departments.
- 17. The in-service education of primary teachers through field programmes as extension services should be entrusted to Colleges of Education (Primary) which would carry them out in co-operation with teachers' organizations and the inspectorate.
- 18. At the secondary level, institutional courses jointly developed by teachers' colleges, professional organizations and universities, should be organized during vacations.
- 19. Every College of Education should provide in co-operation with the teachers' organizations and the inspectorate, a field programme of extension services.
- 20. Special in-service education programmes for inexperienced head-masters of secondary schools, particularly in the rural areas, should be organised for their induction into their new tasks.
- 21. For the experienced headmasters also, in-service education courses should be organized from time to time to ensure their professional development.
- 22. For the professional preparation of collegiate teachers, the State Board of Teacher Education should evolve special programmes with the assistance of the universities and the State Institute of Education.
- 23. Content courses of the Summer Institute type should be organized for collegiate teachers, apart from field-programmes like conferences, seminars, etc.

- 24. Teacher-educators at the secondary and primary levels should also be provided with Summer Institutes for refreshing their knowledge in the subject of their specialization.
- 25. Organizations of teacher-educators should participate in the development of the in-service education prograudes for teacher-educators.
- 26. In-service education programmes for the general orientation and special preparation of teacher-educators and principals of Colleges of Educacation, at all levels, should be organized by the State Institute of Education in co-operation with appropriate resource-agencies and resource-personnel.
- 27. The State Institute of Education should provide extension services to pre-primary and primary Ir. Colleges of Education. The participation of the relevant academic units functioning in the Department should be obtained for these programmes.
- 28. In-service education courses for inspectors and administrators at all levels should be conducted by the State Institute of Education in co-operation with the relevant university departments and other agencies.
- 29. In-service education of inspectors and administrators should be conducted through (a) institutional programmes and (b) field programmes.
- 30. It should be obligatory for every educational functionary to undergo three months of in-service education, in every five years of service.
- 31. Successful participation in programmes of in-service education should be considered essential for the purposes of retention and promotion in service, in the case of all types of educational personnel.
- 32. The system of "certification" of teachers should be instituted to ensure adequate professional standards in the teaching profession and the renewal of certification should take place on the basis of definite criteria, among which successful participation in in-service educaton would necessarily be a major one.
- 33. It is essential to organize a thorough orientation for the personnel to be entrusted with the in-service education programmes of different types. This work should be entrusted to the State Institute of Education.
- 34. Correspondence courses should be started and progressively developed as an effective and inexpensive mode of in-service education in professional and content subjects, for all types of educational personnel. It is strongly recommended that correspondence education for the improvement of the content knowledge of primary teachers, particularly the P.S.C. element in the existing teaching force, should be undertaken immediately through a Department of Correspondence Education to be created in the State Institute of Education.

- 35. Hand books and other materials should be prepared for the use of the personnel entrusted with the conduct of in service educational programmes, and also for the participants in these programmes. Publications on the following topics should receive a priority:
 - (a) Job-analysis of each type of functionary with indication of the skills required for efficiency in the job;
 - (b) Techniques of in service education and educational extension;
 - (c) Techniques of instruction for school and college students and students in professional institutions;
 - (d) Methods of working with parents and adult-groups of different types closely connected with education, particularly in the rural areas.
- 36. Two separate cells in the State Institute of Education should look after (a) the co-ordination of extension services in all training institutions and (b) the co-ordination of the in-service educational programmes for teachers and other educational personnel, conducted under the auspices of different agencies such as (i) Bureau of Extension at district level, (ii) different Sections of the State Institute of Education, (iii) State Institute of English, (iv) Science Education Unit, (v) Institute of Vocational Guidance and its Bureaus, (vi) Inspectorate of audio-visual education, (vii) University Departments involved in Summer Institute programmes, (viii) Bureau of Evaluation, (ix) Organisations of teachers, headmasters and teacher-educators.
- 37. In order to co-ordinate the nature, duration and frequency of the programmes separately attempted by different agencies, a Department of Field Services should gradually be developed in the State Institute of Education on the lines of the Department of Field Services of the NCERT.
- 38. As an immediate measure for the co-ordination of extension services, a committee having the functions and composition stated in section 6.9 should be established.
- 39. The healthy practice which exists among the primary teachers of contiguous schools to periodically come together for a brief conference on educational techniques and problems without expecting any external provision of funds for this activity, should be spread throughout the educational system. Such a practice is followed even by the pre-primary teachers who participate in the in service programmes instituted by the pre-primary training institution at Yeotmal and the Nutal Bal Shikshan Sangh in Poona and Bombay. This concern for job-efficiency and self-development through in-service education programmes, should be instilled into all educational personnel.
- 40. While preparing short term and long term plans of teacher-education, financial provision should be made for both pre service and in service education programmes, as a matter of routine.

- 41. Opportunities for in service education should be made available to all educational personnel in phased and balanced programmes, in an increasing measure, within the next five years.
- 42. Suitable educational journals should be financed/subsidized by the Education Department as part of the programmes for in service education of teachers, teacher-educators and administrators.
- 43. Opportunities and encouragement should be provided to all types of educational workers to attend adult-education courses of their choice, which may be organized by the Extension Services Departments of universities and other educational bodies.
- 44. Facilities should be given to those who desire to study and undertake research for post-graduate degrees in Education such as M.A. (Edn.), M.Ed. and Ph.D. (Edn.).
- 45. The felt-needs of all categories of personnel should be ascertained after every five years of service, and advice should be offered to each as to the courses he might attend for ensuring efficiency and job satisfaction.
- 46. Opportunities for advanced studies and research, should be provided by creating and developing Departments of Education in the Universities in Maharashtra and establishing at least one Centre for Advanced Studies in Education.

L. PLANNING OF TEACHER RECRUITMENT AND TEACHER EDUCATION

The concept of inducing a planned development in the economic and social spheres has come to be accepted in our country only recently. As happened with all first exercises in planning, our emphasis has so far been placed on physical and numerical targets of development. This fact is readily seen in our educational planning. Development is measured in terms of the increase in the number of institutions, enrolment of pupils, number of teachers, amounts spent on various items in the educational programme, and the total increase in expenditure. The attention devoted to ensuring the quality of education is still quite meagre. The numerical approach in educational planning has been evident in Teacher Education, where the number of institutions, particularly at the primary and secondary levels, has increased very rapidly without contributing to the development of the quality of the teacher-education programmes. Moreover, teacher-requirements, also are calculated in numerical terms. The number of institutions which may have to be provided for training them, on the existing pattern, is calculated for the planning period only and their establishment is equally distributed in all the areas of the State. There is very little attempt to phase the growth of teacher-education or to find out alternative ways of imparting it by providing new types of institutions and courses which deviate from the traditional patern. Furher, an important principle of planning is lost sight of in providing for training facilities. The employment incentives which are essential to bring the right kind of people into the training institutions are not considered and the changes which may have to be made in the pattern of training and incentives from level to level and area to area, are not paid sufficient attention. Also, planning in teacher education takes place at the State-level-and to some extent at the Centre-so that the provision of district-wise facilities gets neglected. Lastly, those who actually conduct teacher-education institutions and programmes have hardly any opportunity to contribute their ideas either to the formation or modification of policies, let alone changes in the provision of facilities. It is obvious that these conditions must change very quickly and the planning of teacher-education must be made more scientific and democratic than at present. This also means that a special agency must be entrusted with the task of thoroughly examining and tacking the various factors involved in the planning of teacher education and that the efforts of this agency must be co-ordinated with those of the Planning unit in the Directorate of Education. The State Board of Teacher Education which has already been recommended, can be the most suitable agency for this task.

Apart from undertaking the task of preparing the overall plans for teacher education, the Board should be required to assist each and every training institution to develop the quality of its work and to learn to plan such development. Entrusting this task to the State Board of Teacher Education would achieve an integrated planning, direction and supervision of teacher Education in the entire State.

The development of teachers' colleges in the state shows a wide divergence from region to region and even institution to institution. In order to improve the standards of work in all the colleges and for removing imbalances in development, it is essential to study the difficulties, advantages and needs of every single district and institution and plan the development of each separately, though within the framework of certain well-defined criteria applicable throughout the State. In order to collect the detailed information required for such planning, the State Board of Teacher Education should appoint study-panels in each district of the State to vicit every college and make a detailed report on its physical conditions, standards of work and possibility of development. In case the State Board does not come into existence soon enough, the study should be undertaken immediately by the State Institute of Education. The State Board of Educa-

tion should prepare norms for the grading of teacher-education institutions, at every level, according to their effectiveness. The report of each institution can then be discussed with the principal of each conege, either in small groups or individually, in order to plan the future development of each institution. When this is done, the financial and other implications in achieving the development should be discussed with administration, and phased programmes should be prepared for immediate as well as long range implementation of the development plans for each college. This task would be difficult only in its first phase. Once the criteria and methods of planning are grasped, revision of plans would be simple. As already pointed out, wide differences in the growth of training facilities are seen not only from region to region and district to district but even from institution to institution. Some institutions possess material facilities but cannot attract a sufficent number of trainces. There are many institutions which have a large complement of trainces but do not have adequate accommodation for them nor sufficient equipment or staff for effective training. The intake capacity has lost its relationship with actual intake. The intakes range from 15 to around 350. The primary training programme has reached a saturation point in some districts and trained teachers find it difficult to obtain a job within the district. In other districts, the proportion of trained teachers is low in comparison with the average for the State. Some institutions are very uneconomical because their overhead expenditure has become heavier as their intake capacity is not utilized fully. The Committee discussed these problems with several principals of primary and secondary training colleges and found that it is very necessary to determine some norms for planning the size of teachers' colleges so that they might fully serve the output needs, and also run economically and efficiently. Among the various causes of ineffectiveness of training and inadequate intake, wrong location of colleges appears to be the major one. This is a point which must figure very promiently in planning for a thorough reorganization of teacher education in the State. These findings on size and location of colleges are so important that they descrive a detailed statement here.

Size of Colleges.—It has already been pointed out in section 7.9 that large-sized institutions are gradually receiving more preference as they tend to increase the resources of the colleges in respect of accommodation, equipment, staff and results in not only increase of efficiency but a reduction of per capita cost of education because of the utilization of available resources by a large student-body. Though we see the advantage of having teachers' colleges with a student-body of more than 400 or even 500, we hesitate to make a recommendation for immediate growth in the size of the student-body as we foresee many difficulties in providing enough tuitional and residential accommodation in the existing buildings. However, we recommend

that the intake capacity of a college of education should be raised from 100 to around 200 and that of a junior college of education should be 200 at the minimum and 400 at the maximum, for the next few years to come. The adoption of the system of co-operating schools and block placement of the student-teachers should obviate many of the difficulties encountered in the arrangement of a large number of practice lessons both at the secondary and primary levels. Colleges situated in urban areas would have no difficulty at all to find enough co-operating schools for the arrangement of practical work. The difficulties arise in rural areas if the college happens to be located in a place with a population of less than 10,000. Such locations have resulted in the proliferation of colleges with a varying intake capacity and the existing staffing pattern based on student-teacher ratio, has made it impossible for the small colleges to have well-equipped staff with a variety of qualifications necessary to put across the curricula. It is found on a calculation of the number of hours required for implementing curriculum during the year and distribution of the workload among the teacher-educators on the basis of hours per week, that at least 10 teacher-educators (including the Principal) are required for the primary curriculum and 12 to 14 are required for the secondary curriculum. To utilize the sevices of 8 teacher-educators to their fullest a college must have 200 student-teachers at the minimum.

Location of Colleges.—At the primary level practice teaching arrangements for a college of 200 student-teachers can be made without difficulty if it is located in a place having population of about 10,000 to 15,000. Location of training colleges in places smaller than these not only creates difficulties for arranging practical work but comes in the way of obtaining a good staff because smaller places usually do not have such amenities as easy communication by bus and railway, medical facilities, a good high school for the children of the staff, etc. Housing for the staff is also a difficult problem in very small places. Small places create difficulties for the trainecs also.

Consolidation of Colleges.—Increase in the size of the student-body would make it possible to gradually reduce the number of colleges in the State to nearly 80 to 90 and this smaller number could be easily given better physical facilities, better libraries and laboratories, and other conveniences. Larger units will not only reduce the overhead expenditure and fragmentation of financial and staffing resources over a very wide area but would also become more efficient because of the concentration of the resources in fewer places. Moreover, adequate assistance for administrative and clerical work becomes financially possible in larger units and thus releases the Principal and the academic staff from many of their administrative duties which have no bearing on their work as teacher-educators

From a status-study of primary and secondary training colleges carried out by the State Institute of Education, it is revealed that the growth in the number of training colleges per district has been extremely uneven. It is necessary to close some colleges in districts where a surplus of trained teachers is already created and open more colleges in areas where there is a large backlog of untrained teachers and a greater need of more fresh teachers for meeting the expansion of primary education under recently introduced complusion. In areas where deficiency of trained techers is acute and where village and towns with population of around 15,000 may not exist exception should be made and colleg located in places with a lower population. However, the points regarding availablity of amenities and facilities for practice should not be disregarded.

RECOMMENDATIONS

- (a) Estimates of requirements.—1. Research and investigations should provide the basis for the planning of teacher-recruitment and teacher-education.
- 2. At the pre-primary level, it is necessary to work out teacher-estimates separately for urban pre-primary schools and rural Balvadis.
- 3. At the primary stage, estimates of recruitment should be planned so as to progressively increase the number of S. S. C. holders and decrease the number of the P. S. C. passed teachers.
- 4. Teacher requirements at the primary stage should be gradually so worked out as to facilitate the provision of subject-teaching in Stds. V. VI and VII.
- 5. The proportion of men and women teachers should be so worked out that gradually there is a greater proportion of women primary teachers, as in progressive countries.
- 6. The requirements of primary teachers for the tribal areas should be worked out separately from the general provision.
- 7. At the secondary stage, subjectwise teacher-estimates should be worked out and recruitment of subject-specialists should be emphasized.
- 8. The estimates for increasing teacher-education facilities should be calculated so as to meet the needs of (a) subjects in the curriculum, (b) types of schools; as also on the basis of the availability of (a) qualified candidates, (b) plant, equipment, materials and qualified staff.
- 9. Admission of candidates to Colleges of Education should be so planned as to increase the number of trained teachers in subjects which constitute areas

of short supply, and also to ensure a close relationship between the degreesubjects of the candidates and the special methods to be selecter by them.

- 10. The estimates for techer-educators, at all levels should be worked out on the basis of the requirements of the components of the curriculum.
- 11. The universities in the State should be kept informed of the type and number of secondary teachers and teacher-educators required during every plan period, so that co-ordinated plans might be drawn up for increasing the intake of students with suitable incentives, in the degree courses which must be made more popular to remove the shortage of teachers at the secondary stage.
- 12. A larger provision of seats should be made immediately in the degree courses in English, Science, Mathematics, History and Geography, to meet the growing shortages of teachers of these subjects in secondary schools.
- 13. The universities should also be informed of the estimates for trained secondary teachers in the State, regionwise, and the establishment and development of Colleges of Education should strictly follow these estimates, in order to prevent the proliferation of small colleges which are uneconomical and academically inefficient.
- 14. In order to prevent an unequal provision of teacher education facilities from district to district and division to division, the estimates for trained teachers should be prepared districtwise. The existing position of saturation of facilities in some districts and their acute inadequey in others, should be corrected by taking suitable administrative measures.
- 15 Before planning the establishment of new Colleges of Education, primary or secondary, the availability of suitably qualified staffs should invariably be ascertained.
- 16. A perspective plan should be prepared, to calculate the requirements for teacher-educators and the needs in this respect should be communicated to the universities, for adjusting the intake of post-graduate students in Education and providing the requisite courses for subject-specialists also.
- 17. A varied programme for the in-service education of teacher-educators, at all levels, (in content as well as professional subjects) should be planned and included in the financial requirements for the total development of teacher-education.
- 18. Substitute requirements for teachers and teacher-educators, who would be on deputation to inservice education courses, should be included in the plans in order to ensure that every person is enabled to undergo in-service courses.

- 19. In the perspective planning of education, the total requirements of teacher-supply (subjectwise), teacher-preparation, content-courses, in-service education, specialization-courses, should be considered as essential factors in working out personnel estimates.
- 20. The financial and educational implications of the location and intake capacity of Colleges of Education (both primary and secondary) should receive very careful attention in the plans.
- 21. The maximum utilization of space, equipment, staff and such other factors involved in the teacher-education programme, should be ensured while establishing a college, by working out its budget on the basis of approved norms of the unit-costs of teacher-education, on a per capita basis.
- 22. From among the existing institutions of teacher-education those which show a promise of economic viability and educational efficiency should be selected for further development, in a phased programme.
- 23. A rational programme of establishing new institutions for preservice and in-service programmes should be evolved, strictly in accordance with predetermined criteria which should be based on the findings of a critical evaluation of teacher-education facilities in the State.
- 24. The estimates for inspecting staff, at every level, should be worked out to ensure a proper relationship between the qualifications of the inspectors and the qualifications of the teachers who are to be supervised by them.
- 25. The numerical strength of the inspecting staff at the primary stage should be based on the functions of the inspector as an extension officer, entrusted with the on-the-job training of teachers.
- 26. The State Board of Teacher Education should closely collaborate with the planning machinery in the Directorate of Education, in preparing the short-term and long-term plans of teacher-education, from both quantitative and qualitative angle.
 - (b) Urgent studies necessary to assist appropriate planning-
- 27. Investigation into the quality of the existing teacher-education institions should be undertaken unregntly.
- 28. The factors which adversely affect the morale and efficiency of teachers should be studied in detail, at every stage of education, to avoid the wastage of funds which results from inefficiency.
- 29. Such problems as the training of women teachers and teachers for tribal areas should be thoroughly investigated within the next year or two.

- 30. The physical and material conditions of schools, particularly in the rural areas, should be studied to find out their impact on the teachers' efficiency.
- 31. Experimental work in the development and production of a variety of non-projection teaching aids which can be made at a low cost, should be undertaken.
- 32. Programmed instruction should be developed for the education of teachers, particularly at the primary level, to offset the shortage of good teacher-educators and also to manage large classes effectively.
- 33. The possibility of utilizing new educational technology, separately in rural and urban schools, and at each stage of education, as also in teacher-education, should be carefully studied, in order to have better instruction at a lower cost.
- 34. The finance and administration of teacher-education should be studied in all its aspects, for improving the quality of teacher-education.
- 35. A critical study should be undertaken to assess the suitability of the existing Marathi Text-books and reference-books in Education, and criteria should be evolved for the preparation of standard text-books and other educational literature required for all pre-service and in-service teacher-education programmes. The expenditure on this activity should be included in the plans of teacher-education.
- 36. Studies should be undertaken to evolve suitable type plans for the buildings of Colleges of Education and for the designing and production of suitable furniture, equipment, and teaching aids.
- 37. Studies in the developmental problems of school children should be urgently conducted by the University Departments of Psychology in the State, with the help of Colleges of Education, in order to help prevent wastage in the lower classes in primary schools.
- 38. Colleges of Edusation should undertake collaborative programmes of studies and investigations for making teacher-education more effective.
- 39. A Research-Co-ordination Committee should be appointed under the auspices or the State Institute of Education to co-ordinate the planning, conduct and financing of the research programmes of the Colleges. The Committee should remain in close touch with the State Board of Teacher Education, Planning Unit, and the professional organizations, in order to ensure that the findings of the studies and investigations assist the preparation of plans for developing the quality of teacher-education.

40. The entire teacher-education programme should be evaluated every five years, and further plans should be modified on the basis of such evaluation. The evaluation should be done under the auspices of the State Board of Teacher Education, by the Planning Unit/State Institute of Education.

M. RESEARCH AND ADVANCED STUDIES IN EDUCATION

Courses in Education were originally organized for training in pedagogical techniques. However, with the development of scientific research and deeper thinking in the social and psychological foundation of education, there has now been evolved a substantial body of thought which has its own clear characteristics as a branch of Social Sciences. In the evolution of educational thought in the past two decades pedagogical techniques have not remained the focal point. They have come to be looked upon only as the operational aspect of several branches of educational theory. Education, therefore, has begun to take a place of honour among the Social Science disciplines at the university level. In our State, post-graduate work in Education began to be organized in a systematic manner nearly twenty years ago, with the inception of the M.Ed. courses in several leading universities. But as the students and teacher-educators at the post-graduate level have naturally had a very strong pedagogical orientation, the development of education as a discipline has not taken place as rapidly as it should have. Fortunately, several scholars of social sciences and other disciplines have been drawn towards educational reconstruction in the post independence period and their contribution has lifted education above the level of mere pedagogy. Since Education is now considered to be a condition precedent to the development and security of a nation, it is very necessary that the different facets of education such as Philosophy, Psychology, Sociology, Economics, Administrative Techniques and so on should get more and more attention from scholars and outstanding leaders of academic thought. The elevation of Education to the status of an important university disclipline would be facilitated through the establishment of Departments of Education in the universities and by releasing it, to the necessary extent, from the past domination of pedagogy. It is well known that graduates of high calibre rarely undertake to study education mixed up with pedagogical courses since the status of the teaching profession has not been kept sufficiently high in our society. Yet, unless persons of a high intellectual capacity enter the field of education and contribute to its development education will not be in a position to serve as the instrument for achieving national goals. Apart from the M.Ed. degree courses, therefore, it is necessary to provide a two year course for the M.A. degree in Education as has been the practice for the past several years in advanced countries. It has further to be recognized that within the field of education several branches of specialization have arisen and special preparation is now required to

undertake different types of educational tasks. Even in the two-year M.Ed. courses, therefore, provision will have to be made for a core programme as well as a specialization programme to prepare educational planners, administrators, teacher-educators, educational psychologists, research workers and so on.

The quality of work done in teacher-education institutions naturally depends on the quality of their staff. However, the question of increasing the special competencies as well as the breadth of knowledge of the staffs of teachers colleges has received only inadequate attention so far. Obviously, education is to be improved and class-room instruction is to be made more effective through research and experimentation, the staffs of teacher-education institutions will have to include at least a few persons with training in research. The possession of the Ph. D. degree in Education has now to be considered essential atleast for those who hold the Reader's and Professor's posts in Colleges of Education. The university Departments of Education also will have to be increasingly staffed by professional educators who have comprehensive background in education and active research work to their credit. The present rate of the production of Ph.Ds. in Education is so slow that taking the whole State together it would be difficult to find more than a dozen Ph.Ds. in Education. Besides, even these research-trained persons have hardly any opportunities for the further increase of their knowledge of research techniques and proper facilities for guiding research students to obtain the Ph.D. degree. The doctorate courses in Education, as they stand to-day, consist only of writing out a research thesis and there is hardly any arrangement to systematically organize doctorate work in such a manner that appropriate guidance could be received by students. Very often teachers of Education at the post-graduate level are burdened with administrative duties in addition to the other handicaps which their work has to face. Practically no incentives exist for students of high calibre to undertake post-graduate studies in Education. The Faculties of Education as they exist to-day have very little contact with the work of University Departments in other disciplines nor do they have any direct relationship with the plans and programmes of the Directorate of Education in the State. The lack of connection between research studies conducted in the Education Departments of the universities and the activities of the Education Department of the State have rendered much of the current research in Education meaningless from the operational point of view. If the universities take a lead in promoting operational research and if its impact is directly seen in the improvement of Education in the State, there is no doubt that more funds would be forthcoming for assistance to educational research. Apart from having Departments of Education in the universities, it is necessary that the State should have at least one Centre of Advanced Studies in Education in order to

evolve educational thinking, writing and research at the highest intellectual level. While the University Departments of Education would concentrate more on operational research, the Centre for Advanced Studies should be in a position to undertake thinking and investigation of educational problems of a wider and more fundamental nature.

RECOMMENDATIONS

- 1. The study of Education as a discipline should be organized by establishig Departments of Education in all the universities in the State.
- 2. Provision should be made to offer two years course in Education for the M.A. degree.
- 3. Education should be offered as a subject for part fulfilment of graduation and post-graduate courses, in the Arts faculty.
- 4. Graduates of high calibre should be directly admitted to the two-year M.Ed. courses which provide professional specialization for different types of educational tasks.
- 5. Provision of research guidance, in a variety of areas in Education, should be made by the Universities for making the Doctorate in Education a really useful qualification for managing the variety of tasks in the educational system.
- 6. The Doctorate in Education should gradually be made an obligatory qualification for all higher jobs in the educational system. It should be particularly insisted upon for teacher-educators at the secondary level.
- 7. University teachers of Education should not be unduly burdened with administrative duties and should be given full facilities required for personal research work and teaching.
- 8. Special incentives such as fellowships, contingent grants, publication grants etc., should be provided to the students at the doctoral level.
- 9. Studies for the Ph.D. degree in Education should consist of 50 per cent. of "course-work" in research methodology and foundation subjects, and 50 per cent of investigational work.
- 10. The examination for the Ph.D. degree should consist of 3 parts: (a) written examination in course-work, (b) examination of thesis and (c) oral examination on course-work and thesis.
- 11. The Universities should maintain up-to-date panels of specialist post-graduate teachers, from all over the country (and even abroad) in order to appoint well-qualified examiners for the Doctorate examination.

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- 12. A substantial programme of comprehensive educational research of fundamental nature should be developed by the Universities.
- 13. Problems of education should be studied through an inter-disciplinary approach and with the cellaboration of the relevant Departments of Universities.
- 14. At least one Centre for Advanced Studies in Education should be developed in the State, in a suitable place. It should function at the highest intellectual level and contribute to the solution of educational problems of a fundamental nature and for the development of educational concepts.

* * *



CHAPTER TEN

ABSTRACT OF RECOMMENDATIONS

A. TRADITIONALISM IN EDUCATION

- 1. The main function of our teacher-education programmes should be to provide the educational system with teachers who (a) can understand the challenge of our developmental goals, and (b) possess enough ability to promote the high educational standards required for meeting the challenge.
- 2. All our teacher-education programmes should be thoroughly revised, without delay, to enable the teachers to perform the difficult but essential task of protecting our cultural heritage while promoting the assimilation of science and technology into the texture of our society.
- 3. Many elements from the existing teacher-education programmes such as the stress on craft-work and community service, at the primary level, are inherently good. But they must now be readapted carefully and harmonized with the new calls on education. Some elements which are out of tune with our times should be firmly discarded and the revised programmes both in theory and practice should be boldly implemented. (Tentative outlines for revised curricula: Appendix VII).
- 4. Immediate steps should be taken to educate public opinion on the changes which the State must make in its teacher-education programmes in order to improve the quality of school education.
- 5. Administrative measures should be taken immediately in order to introduce the revised teacher-education programmes from June 1968. Revision of curricula and text-books, preparation of hand-books for teacher-educators and all preparatory work needed for the change over should be completed by December 1967.
- 6. As some of the existing regulations and practices in the recruitment of teachers, teacher-educators and inspecting officers (at all levels), are likely to conflict with the State's efforts towards encouraging the study of English, Science and Mathematics, with a view to modernizing school education; steps should be taken to suitably readjust them.
- 7. Text-book writers, teacher-educators and inspecting officers should be thoroughly reoriented for adapting themselves to the change over. This task should be undertaken as soon as the revised curricula are ready.

8. The organizational pattern and programmes of teacher-education should be carefully evaluated every five years, and readjusted where necessary, in order to counter-act the possibility of their lapse into traditionalism.

B. Content and Method of School-Education

- 9. The traditional content of school education is reflected in the content of teacher-education. It is essential to alter both in accordance with the modern principles of curriculum construction.
- 10. Programmes of teacher-education, at every level, should be in accordance with the objectives and curricula for school education.
- 11. Techniques of school education must be modernized for inculcating in the pupils the (a) spirit of scientific enquiry, (b) pride in independent thinking, (c) originality of efforts, (d) concern for speed and accuracy in all work, and (e) loyalty to social ideals.
- 12. Teachers must be prepared through pre-service and in-service education to handle new techniques, and to facilitate their creative application for increased productivity.
- 13. In order to promote in the teachers the qualities desired in their pupils, all teacher-educators should be immediately trained towards the use of democratic and scientific techniques in teacher-education and, side by side, intensive in-service programmes should also be instituted for inspecting officers to understand new techniques.
- 14. All techniques of school education, should be gradually modernized. As a first step, instead of the "lecture and dictation" methods, the "group-processes" of teaching and learning, should be increasingly brought into practice.
- 15. Experimental work should be undertaken immediately for the gradual introduction of "programmed instruction" in school education.
- 16. The use of technical media such as the film, film-strip, taperecorder and radio, should be planned, in a phased programme, over the next ten years and techniques of school education should accord with those of teacher-education.
- 17. The inspectorate and community leaders should change their traditional methods of controlling the schools, assist the teacher to democratize school discipline, and encourage him to promote in the pupils a creative independence of spirit and habits of self-directed activity.

C. Composition of the Teaching Profession

- 18. Since teachers who are educated only upto the P.S.C. level are not fit to give the kind of primary education required for scientific and technological development, and are not capable of using modern techniques of teaching, their recruitment at the primary level, and the admission of P.S.C. holders to the training institutions, particularly as private candidates, should be stopped. This measure should be taken immediately, i.e., from June 1967.
- 19. Since the teachers recruited to-day would be required to teach effectively at least till the year 2000 A.D. and work through a period which is bound to be one of constant and revolutionary changes in human affairs, they would need constant re-training. Their lowest qualification must, therefore, be the S.S.C., because that is the level of school-education pre-requisite to the re-training of the primary teacher working in a scientific age.
- 20. At the pre-primary level, where the child's smooth transition from home to school and its socialisation is more important than its formal education, mature P.S.C. holders may be recruited for the present. But when enough S.S.C. teachers become available to work even in rural and tribal areas, the recruitment of P.S.C. holders should be stopped, even at the pre-primary level.
- 21. At the primary level, the number of women teachers should be rapidly increased, by making secondary education free for girls, providing continuation-schools for adult women, and appointment of part-time teachers.
- 22. The recruitment qualification for women and tribal teachers at the primary stage, should also be the S.S.C. They should be attracted towards the teaching profession by offering them emoluments commensurate with (a) the supply-position, (b) their specially difficult task, and (c) the need for society to speedily educate its backward sections in the interest of social justice and economic development.
- 23. At the secondary level, the recruitment of undergraduates, should be severely discouraged.
- 24. For (a) the under-graduates already in employment at the secondary stage, and (b) the P.S.C. holders working at the primary and pre-primary stages, a regulation should be laid down requiring them to complete (a) graduation, and (b) secondary education, respectively,

before June 1971 in order to ensure that they become capable of handling new educational technology which is coming in with rapidity.

- 25. The recruitment of trained and special teachers for physical education, Art, Music and a variety of items in the programme of "work-experience", should be emphasized in the next five years.
- 26. For an intensive improvement of education in Standards V to VII, which constitute the first stage in the child's pursuit of formal studies special teachers, with the requisite training, should be appointed for every subject in the curriculum.
- 27. Women graduates who can undertake part-time work as teachers should be provided with increased opportunities and facilities for such employment.
- 28. Voluntary teachers from among the well-to-do educated persons and technical persons such as doctors, engineers, public health specialists, administrators, agriculture officers and leading agriculturists, should be requested to spare some time for teaching in schools and augment teacher resources as a matter of national duty.
- 29. Graduate and post-graduate students should be organized into teaching squads of the Peace Corps type to make up the shortage of good teachers at the primary and secondary stages.
- 30. Graduates with Pass/III class, should be allowed to appear for their examination again and try for a higher class, only if they agree to enter the teaching profession at least for three years after improving the mality of their degree.
- 31. While recruiting and training secondary teachers, preference should be given to candidates who have specialized in the subjects related to the school curriculum and have a good command over the medium of instruction.
- 32. The number of women teachers at the primary and the secondary stages, should be speedily increased by offering them free training.
 - 33. All teacher-education should be made free by 1971.

D. Administration and Supervision of Education

- 34. The administration and supervision of teaching personnel should be more personalized than it is at present.
- 35. All inspectors, even at the pre-primary and primary levels, should be graduates with good professional qualifications and further special

training for guiding the teachers of the particular school level which is entrusted to them. At the secondary level, post-graduate professional qualifications should be made obligatory for inspecting staff.

- 36. The emoluments of inspectors should be commensurate with their qualifications and responsibilities.
- 37. Every inspector should adopt 3 or 4 schools in his/her area of operation, for their intensive development on a planned basis, in order to make them serve as demonstration centres of good teaching and school organization.
- 38. For helping the teachers to teach effectively, it is necessary to provide more funds for supplying teaching-aids particularly to primary schools and to bring up the existing ratio of 85: 15 in teacher-costs and non-teacher-costs at the primary stage to the normal ratio of 60: 40.
- 39. Recognized teachers' associations should be encouraged to participate in programmes of personnel improvement and they should not be recognized unless their activities include a high proportion of academic programmes.
- 40. The criteria for the recognition of teachers' organizations should preferably be prepared by the State Board of Teacher-Education and submitted to Government for implementation.
- 41. The practice of "certification" of teachers and the "rating" of teachers into grades, should be adopted and followed on the basis of carefully formulated criteria, in order to motivate them for maintaining good quality in their work.
- 42. The co-operation of recognized teachers' organizations should be invited in the certification of teachers.
- 43. Promotions to higher posts in teaching and administration should be given strictly on merit.
 - E. ORGANIZATION AND SUPERVISION OF TEACHER EDUCATION
- 44. In order to integrate the teacher-education programmes at all levels, a State Board of Teacher Education should be established without delay.
- 45. The composition and functions of the State Board of Teacher-Education should be as stated in Chapter IX, Section E.
- 46. The inspection of training institutions at all levels should be conducted by panels of educationists and administrators appointed by the State Board of Teacher-Education from time to time and from area to area.

- 47. Examinations at the end of pre-primary and primary courses of teacher-education should be conducted by the State Board and it should award Diploma and Certificates in Education, at the primary and pre-primary levels, respectively.
- 48. The examination and evaluation of teacher-education courses should be modernized and the practical examination held at present, should be abolished.
- 49. The assessment of practical work should be done on the basis of a carefully maintained record which can be objectively evaluated and would not be in the danger of subjective variation from institution to institution.
- 50. The proportion of weightage to theory and practice should be 60: 40 at the secondary and primary levels, and 50: 50 at the preprimary level.
- 51. Examination in content subjects should be obligatory at the primary level.
- 52. Examination in content subjects should be obligatory for candidates at the secondary level, if they have graduated with non-school subjects like Economics, Politics, Sociology, Philosophy, Psychology, etc.
- 53. In the two-year courses, there should be a common examination in theory at the end of the first year and the subjects completed during the first year should not appear again in the second year examination.
- 54. The minimum entrance qualification for full-fledged pre-primary and primary teacher-education programmes should be the S.S.C.
- 55. The age of entrance to the teaching profession should not be below 18 and above 35 years.
- 56. For providing pre-primary teachers to rural and tribal areas, P.S.C. holders may be admitted to pre-primary training institutions, only as a transitional measure, till enough S.S.C. holders become available.
- 57. Special pre-service courses should be designed for the P.S.C. entrants to pre-primary training institutions, and these initial courses should be followed up by 2 or 3 additional short courses, before the final certificate is awarded to a candidate.
- 58. After the completion of the initial pre-primary training course, the P.S.C. holders should be allowed to work in pre-primary schools only of the Balwadi type or in the play-centres, in tribal areas.

- 59. The pattern of teacher-education in the State, should be as follows:
 - (a) Diploma in Education (Primary) course of two years' duration after S.S.C., for all teachers of Standards I to VII.
 - (b) Diploma in Education (pre-primary) course of two years' duration, after S.S.C., for teachers of full-fledged pre-primary schools with eligibility to teach in Standards I and II of primary schools.
 - (c) Certificate in Education course of one year's duration, after S.S.C., with eligibility to teach only in pre-primary schools.
 - (d) Lower Certificate in Education course of one year's duration, for P.S.C. candidates at the pre-primary level, to be followed by two more courses of six months' duration each, within five years of the initial courses. (If these teachers pass their S.S.C. examination within three years, after the initial course, the Certificate may be granted by waiving the two additional courses.)
 - (e) Bachelor of Education Degree course of one year's duration, for graduate teachers of secondary schools or graduate Head Masters of primary and pre-primary schools.
- 60. The nomenclature of training institutions should be changed to suit it to the new concept of teacher-education and to the rise in the entrance qualifications of candidates to the pre-primary and primary levels, as follows:
 - (a) Institutions for the training of graduates should be uniformally called "Colleges of Education". (प्रशिक्षण महाविद्यालय).
 - (b) Institutions for the training of pre-primary and primary teachers should be called "Junior Colleges of Education". (प्रशिक्षण विद्यालय).
- 61. A comprehensive college of teacher education one for each Division of the State, should be established by Government as an experimental measure.
- 62. The comprehensive college should integrate the pre-primary and primary or primary and secondary levels of training, to begin with.
- 63. A four-year integrated course of general and teacher education may be tried out under one of the universities in the State, starting the integration only in the second year.
- 64. Correspondence courses, particularly for improving the subject knowledge of teachers at the primary and secondary levels, should be started under the auspices of the State Institute of Education.

F. Physical and material conditions of Teachers' Colleges

(a) Buildings.

- 65. Since the environment of a teachers' college and its atmosphere make as much impact on the professional values, attitudes and skills of student-teachers as formal study and practice of education, the housing of teachers' colleges in sub-standard buildings and unsuitable surroundings should be strictly prohibited.
- 66. As it is essential to maintain the prestige of teachers' colleges, at all levels, as professional institutions of collegiate standards, fresh norms should be evolved for their administrative, tuitional and residential buildings. The State Board of Teacher Education should undertake this task as an item of high priority.
- 67. Type plans for the buildings of teachers' colleges should be drawn up urgently in the light of the norms. In the construction of buildings, durability, simplicity and functional utility should be emphasized. In addition, scope should be left for probable additions and alterations to the buildings by broadly visualizing the probable development of teacher-education programmes in the next 15 years.
- 68. Criteria for the selection of site should also be evolved with due regard to the conditions essential for sanitation, water supply, recreational activities and other amenities required for conducting teacher-education programmes efficiently and for the probable future growth of the institute.
- 69. Economy should be effected in the provision of tuitional buildings by designing them for full utilization from morning to evening by several batches of students engaged in different aspects of the teacher-education programmes and also by teachers engaged in extension programmes.

(b) Furniture and Equipment

- 70. Detailed norms should also be evolved by the State Board of teacher-education for functional and durable furniture and equipment for offices, class-rooms, libraries, laboratories, etc. Every item of furniture and equipment should contribute its quota to the effectiveness of the teacher-education programme and the prestige of the institutions.
- 71. Since the care and maintenance of buildings and equipment are essential for their effective use as also for reduction of costs on repairs and replacements, the staff necessary for care and maintenance should be provided to every institution.

- 72. As the furniture and equipment and teaching aids necessary for the teacher-education programme are not easily available in the market in sufficient quantities, the State Board of Teacher Education and the Education Department should give urgent attention to measures required for adequate production of equipment and aids at low cost and their supply to the colleges.
- 73. The libraries of teachers' colleges should contain, besides books and journals on education, multiple copies of good books and journals of general interest including standard works of fiction.
- 74. Every College of Education should have the equipment required for all aspects of the teacher-education programme, i.e., (a) instructional aids, (b) AV equipment, (c) tools, implements and material for work-experience, (d) material for sports, games, physical education, (e) cultural programmes and community service, (f) hobby-club accessories, (g) camping, hiking, scouting, etc.

G. CURRICULA FOR TEACHER-EDUCATION

- 75. It is recommended that teacher-education curricula, at all levels, should be immediately revised with the help of a special committee to be appointed by the State Board of Teacher-Education. Experts in curriculum construction should be attached to the committee. Their services may be obtained from the NCERT. The committee should be requested to construct the curricula for all levels of general teacher-education, through the co-ordinated efforts of "working groups", each of which would be responsible for one level.
- 76. The curricula should be based on the new directions indicated in Sections 8.3 8.4, 8.5, 8.8 and 8.11 and may utilize the indicative outlines given in Appendix VII of this Report.
- 77. Work experience, including community service and activities of the NFC should form a substantial part of the practical work at the secondary and primary levels.
- 78. Preparation of a large variety of teaching-aids and apparatus would also be an important element which would relate craft-work and art directly with modern instructional techniques.
- 79. Experience should also be given to teachers under training in programmes of educational extension.

- 80. Guided, as also free discussions in the form of properly planned and organized seminars and symposia should tackle the fundamental problems of education in the country to analyze them in terms of social and economic values. This should be an obligatory item of practical work.
- 81. At the primary and secondary levels, the conventional arrangement of attaching, practising schools to a teachers' college, though desirable when schools were few and their character uniform, is now unsuitable for realistic problem-solving in instructional techniques. The arrangement should, therefore, be discontinued.
- 82. Henceforth, practical work should be arranged in several selected co-operating schools.
- 83. The practice of arranging stray-lessons should be replaced by block-teaching", of 3 to 4 weeks per student per year, in a given school.
- 84. "Block-teaching" should include class-room instruction, correction of exercises, administration of new type tests, participation in the organization and implementation of all school activities, and assistance in administrative tasks.
- 85. At the pre-primary level, where the school units, as also the number of schools available for practical work, are still very small, the convention of attaching a practising school to the college may continue for a few years more. But it should be replaced by the system of co-operating schools, as soon as circumstances permit. Wherever possible, field visits should be organized for observing different types of pre-primary schools and their problems.
- 86. The State Board of Teacher-Education should work out detailed criteria for the selection of co-operating schools at all levels.
- 87. The status of co-operating schools should be differentiated from that of other schools.
- 88. The work done by the co-operating teachers in connection with the teacher-education programmes, should figure in their total work-load and the staffing pattern of co-operating schools should be readjusted from this viewpoint.
- 89. A special equipment grant should be given to the co-operating schools for meeting the needs of the practical work to be done on behalf of the Colleges.

90. The details of the working relationship between the college, the co-oprating schools and inspecting staff should be defined carefully by the State Board of Teacher-Education in consultation with all the three agencies involved in this programme.

H. TECHNIQUES OF TEACHER-EDUCATION

- 91. The techniques of teacher-education should be suitable for professionally motivated adult students.
- 92. Lectures should be arranged only when topics of a descriptive nature are to be dealt with or when a large group is essential for rousing students' emotions, in the cause of education.
- 93. Every topic in the syllabus, which requires a clear comprehension and further development of concepts should be tackled through group discussions.
- 94. Since a group of 15 to 20 persons is found to be more stimulating than smaller or larger groups, it is recommended that the schedules of discussions should be worked out on the basis of this number.
- 95. Increasing use should be made of the Case-Study method for elucidating the educational implication of the principles in the philosophical, sociological and psychological foundations of education.
- 96. Similar techniques, combined with field-observation should be used in the study of school management and organisation.
- 97. The use of programmed material should be encouraged for studying content subjects and also some aspects of educational psychology.
- 98. Self-study methods should be encouraged by requiring the students to carry out reading assignments, group-discussions, consultations with resource persons, use of laboratory, and similar other measures.
- 99. Increasing use of films-strips, films and the tape-recorder should be planned for the study of as many units of theory and practice as possible.
- 100. The techniques suggested in section 8.8 should be tried out, particularly at the secondary and primary levels.
- 101. The student-teachers should be acquainted with such emerging methods of instruction, suited both to adults and children, as team-teaching, combination of film-media with the use of text-books, combination of tape-recorder with film-strips, use of closed-circuit television, instructional machines and so on.

I. THE QUALITY OF TEACHER-EDUCATORS

(a) Academic and Professional Qualifications

- 102. The qualifications of teacher-educators at all levels must be increased in view of the increasing qualifications of the entrants to the teaching profession.
- 103. Since the pre-primary and primary training institutions will have to be equated with intermediate or junior colleges, the basic qualifications of their teacher-educators should be the same as those of lecturers in the colleges of Arts and Science at the same level.
- 104. At the secondary level, the staff should be categorized into lectures Readers/Assistant Professors, and Professors, as in other collegiate institutions.
- 105. The practice of appointing Masters of Methods with only the B.A., B.Ed. or B.Sc., B.Ed. qualifications simply for observing lessons should be abolished as it reduces the standards of teacher-education.
- 106. As educators in professional institutions, all teacher-educators should hold special qualifications for working as expert guides to student-teachers at the (a) secondary, (b) primary and (c) pre-primary level, as the case may be.
- 107. Every teacher-educator at the secondary and primary levels should hold a post-graduate qualification in education.
- 108. At the pre-primary level, this requirement should come into force as soon as the training facilities at that level develop sufficiently.
- 109. The qualifications of Principals of teachers' colleges should be higher than those of their staff.
- 110. The following scheme of staffing in the secondary, primary and preprimary levels respectively, is strongly recommended:

MINIMUM QUALIFICATIONS:

Secondary Level

(1) Lecturers:

- (i) M.A./MSc./M.Com. II Class or M.A./M.Sc./M.Com. and B.A./B.Sc./B Com. II Class
- (ii) B.T./B.Ed. I Class.
- (iii) M.Ed. II Class.
- (iv) Two years experience of teaching in school.

A lecturer after five years of satisfactory service or a Head Master of a Secondary School with five years' experience will be eligible for being appointed as an Assistant Professor/Reader.

- (2) Professors:
 - (i) M.A./M.Sc./M.Com. II Class.
 - (ii) B.T./B.Ed. I Class,
 - (iii) M.Ed. II (or M.Ed. with Research)

 Preference would be given to persons holding Ph.D. (Education)

 degree in addition to qualifications mentioned in (i), (ii) and

 (iii) above.
 - (iv) Seven years experience as Lecturer or two years' experience as Assistant Professor/Reader.
- (3) Professor for post-graduate teaching (By papers).
 - (i) M.A./M.Sc./M.Com. II Class...
 - (ii) B.T./B.Ed. II Class.
 - (iii) M.Ed. II (or M.Ed. by Research).

Preference would be given to persons holding Ph.D. (Education) degree in addition to qualifications mentioned in (i), (ii) and (iii) above.

- (iv) Ten years experience as Lecturer or three years experience as Professor.
- (4) Professor for Post-Graduate Teaching: (Research).
 - (i) M.A./M.Sc./M.Com. II Class.
 - (ii) B.T./B.Ed. I Class.
 - (iii) M.Ed. (Research) or M.Ed. (Papers) II Class.
 - (iv) Ph.D (Education) or Acknowledged published Research work

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(v) Experience as Professor for 3 years.

Note.—Notwithstanding what is stated above in exceptional cases, eminent scholars who having extensive and high quality research work to their credit, may be recognized as Post-Graduate Professors (By Research).

(5) Principal.—The same qualifications as those for a Post-Graduate Professor (by Papers or by Research) and in addition 3 years' administrative experience as Vice-Principal of the College or Head Master of a Secondary School

Note.—In the case of persons possessing qualifications from foreign universities the equivalence will be determined by Academic Councils of concerned universities or the Teacher Education Board of Maharashtra Government on the recommendations of the Board of Studies of the university concerned.

PRIMARY LEVEL:

There will be only two-cadres — Lecturers and the Principal:

Lecturers:

- (i) B.A./B.Sc. II Class.
- (ii) B.T./B.Ed. II Class.
- (iii) M.Ed.
- (iv) Five years' experience of teaching in a school or schools preferably Standards I to IX.

Principal:

- (i) M.A./M.Sc. or B.A./B.Sc. II Class.
- (ii) B.Ed. II Class.
- (iii) M.Ed. II Class (or by Research).
- (iv) Five years' experience as lecturer OR five years' experience of teaching in a secondary school.

Note.—Special teachers for Physical Education, Craft-Work, Drawing and Music in Junior Colleges of Education and Colleges of Education should have suitable qualifications and experience in their fields. The adequacy of these should be determined by the Principal of the College in consultation with the Board of Teacher Education (in the case of Junior Colleges of Education) and the university concerned (in the case of Colleges of Education).

PRE-PRIMARY LEVEL:

- (1) Lecturers:
 - (i) B.A./B.Sc. II Class.
 - (ii) B.T./B.Ed. II Class.
 - (iii) Diploma or Certificate in the Teaching of Pre-Primary Classes.
 - (iv) Experience of teaching in a pre-primary school or in a primary school (preferable standards I to II) for 3 years'.
- (2) Principal:
 - (i) (ii) The same as above.
 - (iv) Experience of teaching in a Junior College of Education (Preprimary.)

- (b) Status, Salary and Conditions of Work of Teacher-Educators:
- 111. The status and salary-scales of teacher-educators should be in accordance with university regulations, even though the colleges at the primary and pre-primary levels may continue to work under the control of the Education Department. The teacher-educators in Government institutions should belong to the Collegiate Branch in Maharashtra Educational Service.
- 112. The top posts in the Government Colleges of Education, such as professors and principals may occasionally be filled by selected officers of out-standing academic merit from the Administrative Branch if they so desire, to enable them to refresh their knowledge of education devoting short periods of their service to teaching and research in education. Professors and Principals from Government Colleges of Education may be similarly allowed to work in the Administrative Branch, only if they show administrative acumen and are also ready to undergo orientation in administration.
- 113. The staffing pattern of the colleges of Education should not be based on the pupil-teacher ratio as at present but on the number of specialists required for the total theoretical and practical curriculum. Further, the curriculum should be spelt out in terms of the number of hours required for its implementation and the staffing pattern should ultimately be decided on three criteria: (i) categories of specialists required for the curriculum and (ii) the hours of attendance and work per week to be prescribed for each and (iii) the size of the staff should determine the size of the student-body on the basis of a reasonable per capita expenditure to be allowed per student.
- 114. It is strongly recommended that clear-cut service conditions, defining work-loads, salary-scales, etc., should be laid down for staffs of the Junior Colleges of Education at the primary and pre-primary levels.
- 115. The staffs of the colleges of Education, at all levels, should be provided with conditions of work which would enable them to improve their competence, contribute to the growth of education through research and experimentation, utilize an atmosphere of academic freedom for evolving new directions in education, and take the benefits of opportunities such as conferences, seminars, etc. which would bring them into contact with other teacher-educators as also with educators of repute from other disciplines.
- 116. The antiquated regulations which hinder such academic participation by the staffs of Government Colleges, should be replaced by regulations which would help increase their academic efficiency.

J. DURATION OF TEACHER-EDUCATION COURSES

- 117. Since Teacher Education courses include intensive theoretical and practical work and have also to build up professional values and attitudes in the student-teachers, their duration should be sufficiently long for implementing the total programme effectively.
- 118. In the present circumstances, we however, recommend that the following duration should be adopted for courses at different levels of teacher-education: (a) Two years for the post S.S.C. pre-primary course combined with preparation to teach Stds. I and II, (b) Initial training of one year to be followed by short courses of 6 months each within a period of 5 years, for P.S.C. candidates at the pre-primary level, (c) Two years at the primary level, uniformly, for teachers of Stds. I to VII (only S.S.C. candidates to be admitted in future) and (d) One year at the secondary level, for graduate candidates.
- 119. We however, recommend that the duration of the courses at the secondary stage, for graduates, should be increased to two years as early as possible.
- 120. One year of training should mean not less than 240 working days per year exclusive of examination days. Vacations and holidays should be curtailed for this purpose.
- 121. Full attendance should be required from every candidate at every level for the period of 240 days, with a provision of casual leave only, to meet emergency needs for leave.
- 122. A working day should mean full six hours of work for the student, excluding recess and a half working day should mean full four hours of work.

K. OPPORTUNITIES FOR PROFESSIONAL DEVELOPMENT

- 123. Since pre-service professional education serves only as a process of induction into a job, it is absolutely essential to follow it up by programmes of in-service education.
- 124. At the collegiate level, apprenticeship should be made obligatory for junior lecturers and foundation courses in Education and Educational Techniques at the collegiate level should be provided intensively for all staffs of colleges.
- 125. For the maintenance of efficiency, participation in in-service education programmes should be made obligatory for teachers, headmasters, teacher-educators, principals, inspectors and administrators, at all levels.

- 126. In-service education programmes should be directed to assist the readjustment of every functionary in the educational system, to the changing character of his roles and functions.
- 127. The felt needs of the personnel at each level should invariably be assessed while devising in-service education programmes.
- 128. In-service education programme should be directed towards (a) general professional development and (b) specialization in any aspect of professional work.
- 129. The organization of in-service education should take three forms: (a) institutional courses like Summer Institutes and workshops; (a) field programmes like conferences, seminars, study-circles; (c) on-the-job education through extension services.
- 130. Every College of Education should be required to include in its total programme, both pre-service and in-service education of teachers.
- 131. Extension services should be built into the field-work programmes of every College of Education and this factor should be reflected into the norms to be worked out for the provision of staff, plant and material facilities.
- 132. The organization of in-service education programmes should come within the purview of the State Board of Teacher Education.
- 133. Every agency connected with the professional development of teachers should be encouraged to participate in the planning and organization of the programmes of in-service education. This participation should be required from the Education Department (through the State Institute of Education); professional organizations of teachers, head-masters and teacher-educators; colleges of Education; relevant university departments; and other official and non-official institutions and organizations.
- 134. In preparing the criteria for granting recognition and financial assistance to professional organizations, their active contribution to the in-service education programmes should constitute a major criterion.
- 135. Since pre-primary teachers will take some time to be well organized as a professional group, the programmes for their in-service education should be instituted mainly through the agency of pre-primary teachers' colleges. These may take the form of (a) institutional programmes, (b) field programmes, (c) extension services for on-the-job education.
- 136. For the in-service education of primary teachers whose numbers are very large, institutional courses should be provided in special in-service

education institutions to be established throughout the State at the rate of one per district. Their programmes and staffing pattern should be developed as indicated in section 6.10.

- 137. The in-service education institutions at the primary level should conduct separate courses for teachers and head-masters of primary schools, throughout the year.
- 138. All institutions specially established for in-service education should be declared as Non-Vacation Departments.
- 139. The in-service education of primary teachers through field programmes and extension services should be entrusted to Colleges of Education (Primary) which would carry them out in co-operation with teachers' organizations and the inspectorate.
- 140. At the secondary level, institutional courses jointly developed by teachers' colleges, professional organizations and universities, should be organized during vacations.
- 141. Every College of Education should provide in co-operation with the teachers' organisations and the inspectorate, a field programme of extension services.
- 142. Special in-service education programmes for inexperienced head-masters of secondary schools, particularly in the rural areas, should be organized for their induction into their new tasks.
- 143. For the experienced head-masters also, in service education courses should be organised from time to time to ensure their professional development.
- 144. For the professional preparation of collegiate teachers, the State Board of Teacher Education should evolve special programmes with the assistance of the Universities and the State Institute of Education.
- 145. Content courses of the Summer Institute type should be organized for collegiate teachers, apart from field-programmes like conferences, seminars, etc.
- 146. Teacher-educators at the secondary and primary levels should also be provided with Summer Institutes for refreshing their knowledge in the subject of their specialization.
- 147. Organizations of teacher-educators should participate in the development of the in-service education programmes for teacher-educators.
- 148. In-service education programmes for the general orientation and special preparation of teacher-educators and principals of Colleges of

Education, at all levels, should be organized by the State Institute of Education in co-operation with appropriate resource-agencies and resource-personnel.

- 149. The State Institute of Education should provide extension services to pre-primary and primary Colleges of Education. The participation of the relevant academic units functioning in the Department should be obtained for these programmes.
- 150. In-service education courses for inspectors and administrators at all levels should be conducted by the State Institute of Education in co-operation with the relevant university departments and other agencies.
- 151. In-service education of inspectors and administrators should be conducted through (a) institutional programmes, and (b) field programmes.
- 152. It should be obligatory for every educational functionary to undergo three months of in-service education, in every five years of service.
- 153. Successful participation in programmes of inservice education should be considered essential for the purposes of retention and promotion in service, in the case of all types of educational personnel.
- 154. The system of "certification" of teachers should be instituted to ensure adequate professional standards in the teaching profession and the renewal of certification should take place on the basis of definite criteria, among which successful participation in in-service education would necessarily be a major one.
- 155. It is essential to organize a thorough orientation for the personnel to be entrusted with the in-service education programmes of different types. This work should be entrusted to the State Institute of Education.
- 156. Correspondence courses should be started and progressively developed as an effective and inexpensive mode of in-service education in professional and content subjects, for all types of educational personnel. It is strongly recommended that correspondence education for the improvement of the content knowledge of primary teachers, particularly the P.S.C. element in the existing teaching-force, should be undertaken immediately through a Department of Correspondence Education to be created in the State Institute of Education.

- 157. Hand-books and other materials should be prepared for the use of the personnel entrusted with the conduct fo in-service educational programmes, and also for the participants in these programmes. Publications on the following topics should receive a priority:
 - (a) Job-analysis of each type of functionary with indication of the skills required for efficiency in the job;
 - (b) Techniques of in-service education and educational extension;
 - (c) Techniques of instruction for school and college students and students in professional institutions; and
 - (d) Methods of working with parents and adult-groups of different types closely connected with education, particularly in the rural areas.
- 158. Two separate cells in the State Institute of Education should look after (a) the co-ordination of extension services in all training institutions and (b) the co-ordination of the in-service education programmes of teachers and other educational personnel, conducted under the auspices of different agencies such as (i) Bureau of Extension at the district level, (ii) Different Sections of the State Institute of Education, (iii) State Institute of English, (iv) Science Education Unit, (v) Institute of Vocational Guidance and its Bureaus, (vi) Inspectorate of audio-visual education, (vii) University departments involved in Summer Institute programmes, (viii) Bureau of Evaluation, (ix) Organizations of teachers, head-masters and teacher-educators.
- 159. In order to co-ordinate the nature, duration and frequency of the programmes separately attempted by different agencies, a Department of Field Services should gradually be developed in the State Institute of Education on the lines of the Department of Field Services of the NCERT.
- 160. As an immediate measure for the co-ordination of extension services, a committee having the functions and composition stated in Section 6.9, should be established.
- 161. The healthy practice which exists among the primary teachers of contiguous schools to periodically come together for a brief conference on educational techniques and problems without expecting any external provision of funds for this activity, should be spread throughout the educational system. Such a practice is followed even by the pre-primary teachers who participate in the in-service programmes instituted by the pre-primary training institution at Yeotmal and the Nutan Bal Shikshan Sangh in Poona and Bombay. This concern for job-efficiency and self-development through in-service education programmes, should be instilled into all educational personnel.

- 162. While preparing short term and long term plans of teacher-education, financial provision should be made for both pre-service and in-service education programmes, as a matter of routine.
- 163. Opportunities for in-service education should be made available to all educational personnel in phased and balanced programmes, in an increasing measure, within the next five years.
- 164. Suitable educational journals should be financed/subsidized by the Education Department as part of the programmes for in-service education of teachers, teacher-educators and administrators.
- 165. Opportunities and encouragement should be provided to all types of educational workers to attend adult-education courses of their choice, which may be organized by the Extension Services Departments of universities and other educational bodies.
- 166. Facilities should be given to those who desire to study and undertake research for post-graduate degrees in Education such as M.A. (Edn.), M.Ed. and Ph.D. (Edn.).
- 167. The felt-needs of all categories of personnel should be ascertained after every five years of service, and advice should be offered to each as to the courses he might attend for ensuring efficiency and job-satisfaction.
- 168. Opportunities for advanced studies and research, should be provided by creating and developing Departments of Education in the Universities in Maharashtra and establishing at least one Centre for Advanced Studies in Education.

L. PLANNING OF TEACHER-RECRUITMENT AND TEACHER-EDUCATION

- (a) Estimates of requirements
- 169. Research and investigations should provide the basis for the planning of teacher-recruitment and teacher-education.
- 170. At the pre-primary level, it is necessary to work out teacherestimates separately for urban pre-primary schools and rural Balwadis.
- 171. At the primary stage, estimates of recruitment should be planned so as to progressively increase the number of S.S.C. holders and decrease the number of the P.S.C. passed teachers.
- 172. Teacher requirements at the primary stage should be gradually so worked out as to facilitate the provision of subject-teaching in Standards V. VI and VII.

- 173. The proportion of men and women teachers should be so worked out that gradually there is a greater proportion of women primary teachers, as in other progressive countries.
- 174. The requirements of primary teachers for the tribal areas should be worked out separately from the general provision.
- 175. At the secondary stage, subjectwise teacher-estimates should be worked out and recruitment of subject-specialists should be emphasized.
- 176. The estimates for increasing teacher-education facilities should be calculated so as to meet the needs of (a) subjects in the curriculum, (b) types of schools; as also on the basis of the availability of (a) qualified candidates, (b) plant, equipment, materials and qualified staff.
- 177. Admission of candidates to Colleges of Education should be so planned as to increase the number of trained teachers in subjects which constitute areas of short supply, and also to ensure a close relationship between the degree-subjects of the candidates and the special methods to be selected by them.
- 178. The estimates for teacher-educators, at all levels, should be worked out on the basis of the requirements of the components of the curriculum.
- 179. The universities in the State should be kept informed of the type and number of secondary teachers and teacher-educators required during every Plan period, so that co-ordinated plans might be drawn up, for (a) increasing the intake of students with suitable incentives, in the degree courses which must be made more popular to remove the shortage of teachers at the secondary stage, and (b) curb the flow of students towards the degree courses in subjects with which the teaching-force is unnecessarily flooded.
- 180. A larger provision of seats should be made immediately in the degree courses in English, Science, Mathematics, History and Geography, to meet the growing shortages of teachers of these subjects in secondary schools.
- 181. The universities should also be informed of the estimates for trained secondary teachers in the State, regionwise, and the establishment and development of Colleges of Education should strictly follow these estimates, in order to prevent the proliferation of small colleges which are uneconomical and academically inefficient.
- 182. In order to prevent an unequal provision of teacher education facilities from district to district and division to division, the estimates for

trained-teachers should be prepared districtwise. The existing position of saturation of facilities in some districts and their acute inadequacy in others, should be corrected by taking suitable administrative measures.

- 183. Before planning the establishment of new Colleges of Education, primary or secondary, the availability of suitably qualified staffs should invariably be ascertained.
- 184. A perspective plan should be prepared, to calculate the requirements for teacher-educators and the needs in this respect should be communicated to the universities, for adjusting the intake of post-graduate students in Education and providing the requisite courses for subject-specialists also.
- 185. A varied programme for the inservice education of teacher-educators, at all levels (in content as well as professional subjects), should be planned and included in the financial requirements for the total development of teacher-education.
- 186. Substitute requirements for teachers and teacher-educators, who would be on deputation to in-service education courses, should be included in the plans in order to ensure that every person is enabled to undergo intensive courses.
- 187. In the perspective planning of education, the total requirements of teacher-supply (subject-wise), teacher-preparation, content-courses, in-service-education, specialization-courses, should be considered as essential factors in working out personnel estimates.
- 188. The financial and educational implications of the location and intake capacity of Colleges of Education (both primary and secondary) should receive very careful attention in the plans.
- 189. The maximum utilization of space, equipment, staff and such other factors involved in the teacher-education programme, should be ensured while establishing a college, by working out its budget on the basis of approved norms of the unit-costs of teacher education, on a per capita basis.
- 190. From among the existing institutions of teacher-education those which show a promise of economic viability and educational efficiency, should be selected for further development, in a phased programme.
- 191. A rational programme of establishing new institutions for preservice and in-service programmes should be evolved, strictly in accordance

with predetermined criteria, which should be based on the findings of a critical evaluation of the teacher-education facilities in the State.

- 192. The estimates for inspecting staff, at every level, should be worked out to ensure a proper relationship between the qualifications of the inspectors and the qualifications of the teachers who are to be supervised by them.
- 193. The numerical strength of the inspecting staff at the primary stage should be based on the functions of the inspector as an extension officer, entrusted with the on-the-job training of teachers.
- 194. The State Board of Teacher Education should closely collaborate with the planning machinery in the Directorate of Education, in preparing the short-term and long-term plans of teacher-education, from both quantitative and qualitative angles.
 - (b) Urgent studies necessary to assist appropriate planning
- 195. Investigation into the quality of the existing teacher-education institutions, should be undertaken urgently.
- 196. The factors which adversely affect the morale and efficiency of teachers should be studied in detail, at every stage of education, to avoid the wastage of funds which results from inefficiency.
- 197. Such problems as the training of women teachers and teachers for tribal areas should be thoroughly investigated within the next year or two.
- 198. The physical and material conditions of schools, particularly in the rural areas, should be studied to find out their impact on the teachers' efficiency.
- 199. Experimental work in the development and production of a variety of non-projection teaching aids which can be made at a low cost, should be undertaken.
- 200. Programmed instruction should be developed for the education of teachers, particularly at the primary level, to offset the shortage of good teacher-educators and also to manage large classes effectively.
- 201. The possibility of utilizing new educational technology, separately in rural and urban schools, and at each stage of education as also in teacher-education, should be carefully studied, in order to have better instruction at a lower cost.

- 202. The finance and administration of teacher-education should be studied in all its aspects, for improving the quality of teacher-education.
- 203. A critical study should be undertaken to assess the suitability of the existing Marathi text-books and reference books in Education, and criteria should be evolved for the preparation of standard text-books and other educational literature required for all pre-service and in-service teacher-education programmes. The expenditure on this activity should be included in the plans of teacher-education.
- 204. Studies should be undertaken to evolve suitable type plans for the buildings of Colleges of Education and for the designing and production of suitable furniture, equipment, and teaching aids.
- 205. Studies in the developmental problems of school children should be urgently conducted by the university Departments of Psychology in the State, with the help of Colleges of Education, in order to help prevent wastage in the lower classes of primary schools.
- 206. Colleges of Education should undertake collaborative programmes of studies and investigations, for making teacher-education more effective.
- 207. A Research Co-ordination Committee should be appointed under the auspices of the State Institute of Education to co-ordinate the planning, conduct and financing of the research programmes of the Colleges. The Committee should remain in close touch with the State Board of Teacher-Education, Planning Unit, and the professional organizations, in order to ensure that the findings of the studies and investigations assist the preparation of plans for developing the quality of teacher-education.
- 208. The entire teacher-education programme should be evaluated every five years, and further plans should be modified on the basis of such evaluation. The evaluation should be done under the auspices of the State Board of Teacher-Education, by the Planning Unit/State Institute of Education.

M. RESEARCH AND ADVANCED STUDIES IN EDUCATION

- 209. The study of Education as a discipline should be organized by establishing Departments of Education in all the universities in the State.
- 210. Provision should be made to offer two year course in Education for the M.A. Degree.
- 211. Education should be offered as a subject for part fulfilment of graduate and post-graduate courses in the Arts Faculty.

- 212. Graduates of high calibre should be directly admitted to the two-year M.Ed. courses which provide professional specialization for different types of educational tasks.
- 213. Provision of research guidance, in a variety of areas in Education, should be made by the Universities for making the Doctorate in Education a really useful qualification for managing the variety of tasks in the educational system.
- 214. The Doctorate in Education should gradually be made an obligatory qualification for all higher jobs in the educational system. It should be particularly insisted upon for teacher-educators at the secondary level.
- 215. University teachers of Education should not be unduly burdened with administrative duties and should be given full facilities required for personal research work and teaching.
- 216. Special incentives such as fellowships, contingent grants, publication grants, etc. should be provided to the students at the doctoral level.
- 217. Studies for the Ph.D. degree in Education should consist of 50 per cent. of 'course-work' in research methodology and foundation subjects, and 50 per cent. of investigational work.
 - 218. The examination for the Ph.D. degree should consist of 3 parts:
- (a) written examination in course-work, (b) examination of thesis, and
- (c) oral examination on course-work and thesis.
- 219. The Universities should maintain up-to-date panels of specialist post-graduate teachers, from all over the country (and even abroad) in order to appoint well-qualified examiners for the Doctorate examination.
- 220. A substantial programme of comprehensive educational research of fundamental nature should be developed by the Universities.
- 221. Problems of education should be studied through and interdisciplinary approach and with the collaboration of the relevant Departments of the Universities.
- 222. At least one Centre for Advanced Studies in Education should be developed in the State, in a suitable place. It should function at the highest intellectual level and contribute to the solution of educational problems of a fundamental nature and for the development of educational concepts.

PART IV

APPENDICES

In this Part we have included indicative outlines of curricula for the secondary, primary and pre-primary programmes of teacher-education. All the other relevant information connected with the preparation of the Report, and the essential statistical statements are put together in this part.

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APPENDICES

- I. Government Resolution, dated 10th November, 1965, appointing the Teacher Education Committee
- II. Schedule of meetings held
- III. List of persons who met the Committee for discussion:
 - (a) Educationists and others;
 - (b) Principals of Secondary Training Colleges;
 - (c) Principals of Primary and Fre-Primary Training Colleges.
- IV. Institutions visited by the Committee
- V. Sub-Committees which analysed existing curricula for teacher-education
- VI. Statistical Information:
 - (i) Distribution of teachers under training (Region-wise);
 - (11) Number of Training Institutions (Primary and Secondary), their intake capacity and utilization during 1966-67;
 - (iii) Percentage of trained teachers:
 - (a) elementary level, (b) secondary level;
 - (iv) Examination results at the final teacher training examinations primary and secondary;
 - (r) Proportion of graduate and undergraduate A.D.E.Is. Districtwise and Regionwise;
 - (vi) Subjectwise analysis of the available staff at the secondary level.
 - (vii) Relationship between academic and professional specialization of teachereducators at the secondary level:
 - (viii) Relationship between the graduation and professional specialization, and actual teaching assignments of secondary teachers;
 - (ix) Qualifications of teacher-educators in Secondary Training Colleges (1965-66)
- VII. An outline of the proposed course for the B.Ed. and D.Ed. Examinations
- VIII. References

APPENDIX I

Teacher-Education Programme in the State.

Appointment of a Committee to review the pattern and syllabus of—

GOVERNMENT OF MAHARASHTRA.

EDUCATION AND SOCIAL WELFARE DEPARTMENT.

Resolution No. TCM, 1265-A.

Sachivalaya, Annexe, Bombay-32, 10th November 1965.

Read: Letters No. S. 68/84-51-A, dated 18th August 1965, 25th August 1965, and 28th August 1965 from the Director of Education, Maharashtra State, Poona.

Resolution.—With a view to improving the competence of teachers and raising the quality of school education, it is necessary to redesign the pattern of teacher-education at various levels and to evolve a rational and integrated pattern. Government is, therefore, pleased to appoint a Committee consisting of the following officials and non-officials to review the teacher training courses at the Pre-Primary, Primary and Secondary stages and to make detailed recommendations for their improvement.

	PSCARROW STREET	
1.	Dr. Chitra Naik, Director, State Institute of Education, Poona.	Chairman
2.	Shri N. V. Patankar. Professor, Tilak College of Education, Poona.	Member
3.	Shri A. B. Magdum, Principal, Azad College of Education, Satara.	Member
4.	Shri N. T. Vartak, Principal, Government College of Education, Aurangabad.	Member
5.	Shri S. N. Tamhane, Principal, University Training College, Nagpur.	Member
6.	Shri L. N. Chhapekar, Ashirwad, 54 Shahunagar, Jalgaon.	Member
. ₹7.	Shri V. D. Desai, Principal, Gandhi Training College, Poona.	Member
8.	Shri S. R. Londhe, Director, Rural Institute, Amravati.	Member
9,	Shri B. D. Karve, Mahilashram, Hingne, Poona-4.	Member
10.	Shri Shesh Namle, Shishu Vihar Kendra, Hindu Colony, Dadar, Bombay-14.	Member
11.	Shri N. K. Upasani, Deputy Director of Education, Maharashtra State, Poona,	Member-Secretary

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The Chairman should be authorised to co-opt. experts in various subjects and also invite them as and when required by the Committee.

- 2. The following should be terms of reference of the Committee:
- (1) to review the present pattern of Training Colleges at all levels with reference to their academic effectiveness and viability as administrative units and to recommend a suitable revised pattern;
- (2) to study the present problems of training colleges in regard to admission, qualifications of trainees, pupil-teacher ratio, qualifications, physical facilities such as plant, equipment etc. and to suggest suitable norms for the same;
- (3) to study the curricula and duration of training courses and to make recommendations for their improvement and reorganisation;
- (4) to study the methods of teaching and evaluation and to suggest ways and means to improve them;
- (5) to study the administrative and financial problems of the training Colleges and to recommend ways and means to solve them;
- (6) to recommend effective ways of co-ordinating the training programmes organised by different agencies like the Universities, Department of Education etc.;
- (7) to study special problems of training women teachers and teachers for Tribal and Backward areas, and to recommend measures for their solution;
- (8) to study the problems of special training Colleges for subject teachers and for in-service training of teachers and to recommend ways and means to solve them; and
- (9) to study any other problems connected with Teacher Education and to recommend ways and means to solve them.
- 3. The Committee should be requested to submit its report within a period of six months from the date of its appointment.
- 4. The official members of the Committee should draw Travelling Allowance and Daily Allowance as admissible under the rules. The non-official members and co-opted experts should be held eligible to draw T. A. and D. A. as admissible to members of State Committees i.e. in accordance with Scale I of rule 1(i) b in the Section I of Appendix XIII-Al, to B. C. S. Rules, Vol. II. The local members of the Committee should be paid actual conveyance charges limited to Rs. 3 per day for attending the meeting of the Committee.
- 5. The Deputy Director of Education, Poona in charge of Training Programme should be authorised to countersign Travelling allowance and daily allowance bills of non-official members.
- 6. Sanction is also accorded to incur an expenditure not exceeding Rs. 5,000 as mentioed below:
 - (i) Rs. 4,000 (approximately) on T. A. and D. A. to the non-official members.
 - (ii) Rs. 400 (Rupees four hundred) for purchase of stationery,

- (tii) Rs. 100 for refreshments to be served to the members at the time of the meetings.
- (iv) Special pay at 15 per cent. of their basic pay to the clerk and the steno for the additional work of the Committee which will be required to be done by them.
- 7. The expenditure involved in the proposal should be debited t_0 the budget head "28-Education-E-F-General-V-Misc.(2) Other Communities(10) Boards and Committees" and met from the provision made thereunder during the current Financial year.
- 8. This Government Resolution, issues with the concurrence of the Finance Department vide its No. 16755/D 1953 II, dated 24th September 1965.

By order and in the name of the Governor of Maharashtra,

(Sd.) L. D. SHELKE, Under Secretary to Government.



APPENDIX II

Schedule of Meetings held

Serial No.	No. of meetings.	Date.	Venue.
1	1	9th December 1965	State Institute of Educa- tion, Poona
2	1	10th January 1966	Do.
3-5	3	17th January 1966 to 19th January 1966	. D o.
6-7	2	2nd February 1966 and 3nd February 1966	Do.
8	1	18th February 1966	Do.
9-11	3	2nd March 1966 and 3rd March 1966	Government College of Education, Aurangabad
12-13	2	11th March 1966 and 12th March 1966	Rural Institute, Amara vati.
14-15	2	18th March 1966 and 19th March 1966	S. M. T. T. College, Kolhapur,
16-17	2	21st March 1966 and 22nd March 1966	State Institute of Educa- tion, Poona.
18	1	31st March 1966	Do.
19	1	11th April 1966	Do.
20-21	2	5th May 1966 and 6th May 1966	Boy's town, Nasik.
22	1	9th May 1966.	State Institute of Educa- tion, Poona-2.

APPENDIX III

LIST OF PERSONS WHO MET THE COMMITTEE FOR DISCUSSION.

(a)Educationists and others

- (1) Dr. G. S. Khair ... 1912, Sadashiv Peth, Poona-2.
- (2) Dr. S. V. Kelkar ... Director, Science Education Unit, Poona-1.
- (3) Prin. B. V. Bapat ... Tilak College of Education, Poona-9.
- (4) Dr. B. K. Sohoni ... S. N. D. T. College of Education, Poona-4.
- (5) Shri B. N. Kulkarni ... Bharat High School, Poona-2.
- (6) Shri B. R. Kolatkar ... Director, M. G. High School, Uralikanchan.
- (7) Father Solagram ... St. X'aviers Institute of Education,
 Bombay.
- (8) Prin. S. R. Tawade ... Ramji Sadan, Kolhapur.
- (9) Prin. V. V. Chiplunkar ... S. M. T. T. College, Kolhapur.
- (10) Shri G. P. Sohoni ... Mudhoji High School, Phaltan.
- (11) Prin. K. S. Mardikar ... Dayanand College of Education, Sholapur.
- (12) Prin. N. W. Bhave ... College of Education, Sangli.
- (13) Dr. D. D. Shendarkar ... Marathwada University.
- (14) Shri H. K. Khanapurkar... Marathwada University.
- (15) Shri V. S. Kulkarni ... President, Government Teachers' Association, Aurangabad.
- (16) Shri S. Singh ... Head Master, Manubai Gujarathi High School, Amravati.
- (17) Smt. Sudha Gokhle ... Principal, Pre-Primary Training College, Nagpur.
- (18) Shri N. P. Kevalia ... Principal, Swavalambi College of Education, Wardha.

(b) Principals of Secondary Training Colleges

- (1) Principal, Government S. T. College, Bombay.
- (2) Principal, Government S. T. College, Ratnagiri.
- (3) Principal, Graduate's B. T. Centre, Dhulia.
- (4) Principal, Sadhana School of Education, Bombay.
- (5) Principal, P. V. D. T. College of Education for Women, Bombay.
- (6) Principal, St. Xaviers' Institute of Education, Bombay.
- (7) Principal, College of Education, Dhulia.
- (8) Principal, College of Education, Nasik.

(b) Principals of Secondary Training Colleges-contd.

- (9) Principal, College of Education, Jalgaon
- (10) Principal, S. M. T. T. College of Education, Kolhapur.
- (11) Principal, Azad College of Education, Satara.
- (12) Principal, College of Education, Sangli,
- (13) Principal, Tilak College of Education, Poona.
- (14) Principal, S. N. D. T. College of Education for women, Poona.
- (15) Principal, A. J. V. B. College of Education, Gargoti,
- (16) Principal, Graduates' B. T. Centre, Amravati.
- (17) Principal, Swavalambi College of Education, Wardha.
- (18) Principal, Janata College of Education, Chanda.
- (19) Principal, University Training College, Nagpur.
- (20) Principal, Government College of Education, Akola.
- (21) Principal, Government College of Education, Bhandra.
- (22) Principal, Government College of Education, Aurangabad.
- (23) Principal, Government College of Education, Ambejogai.
- (24) Principal, College of Education, Osmanabad.

(c) Principals of Primary Training Colleges—contd.

- (1) Shri B. D. Hinge ... Principal, B. T. C., Neknoor, district Bhir.
- (2) Shri S. G. Dabholkar ... Principal, B. T. C., Parbhani.
- (3) Shri B. S. Sardeshmukh ... Principal, B. T. C., Murud, district-Osmanabad.
- (4) Shri H. S. Bidkar ... Principal, B. T. C., Basmatnagar, district Parbhani.
- (5) Shri H. M. Sahasrabudhe... Principal, B. T. C., Kada (district Bhir).
- (6) Shri P. V. Baride ... Principal, B. T. C., Dharmabad, district Nanded,
- (7) Kum. I. D. Tribhuvan ... Principal, St. Monicas' Training College for women, Ahmednagar.
- (8) Smt. S. S. Jalgoankar ... Principal, Government B. T. C. for women, Aurangabad.
- (9) Shri R. A. Dhumale ... Principal. old Government B. T. C., Nanded.
- (10) Shri S. V. Dhongde ... Principal, New Government B. T. C., Nanded,
- (11) Shri M. N. Bhagwat ... Principal, Government B. T. C., Paithan,
- (12) Shri V. I. Choudhari ... Principal, P. M. A. Vidyalaya, Khiroda.

(c) Principals of Primary Training Colleges-contd.

(13) Shri J. I. Sirwaiya	Principal, Training College for women, Jalgaon.
· · ·	Principal, Primary, Training College for
(15) Shri K. S. Deshpande	Men, Jalgaon. Principal, Government B. T. C., Kannad.
(16) Shri P. B. Wadange	
(17) Shri R. N. Marathe	
(18) Shri B. D. Chawan	
(19) Shri N. A. Kalantre	
(20) Shri V. K. Bhagwat	
(21) Shri M. P. Gorey	
(22) Shri S. K. Bhisey	
(23) Shri G. M. Bawsay	Principal, Government B. T.C., Akola.
(24) Shri R. D. Babhulgaonkar	Principal, Government B. T. C. for Men, Amravati.
(25) Shri M. R. Barhate	Principal, Government B. T. C. for Men, Washim.
(26) Shri T. M. Saroday	Principal, Shri Shivaji B. T. C., Amravati.
	Principal, Government B. T. C., Washim.
(28) Shri K. S. Bhavsar	Principal, Government B. T. C., Kamptee.
(29) Shri D. R. Sadhu	Principal, Government B. T. C., Bhandara.
(30) Shri G. R. Desai	Principal, Government B. T. C., Yeotmal.
(31) Shri N. E. Ghaskadbi	Principal, Government B. T. C., Katol
(32) Shri D. R. Phadke	Principal, Government B. T. C., Achalpur Camp.
(33) Shri S. G. Bhogle	Principal, Government B. T. C., Pandhar-kawada.
(34) Shri S. S. Khan	Principal, Government B. T. C., Balapur.
(35) Smt. S. Gokhale	
(36) Kum. V. M. Hardikar	
(37) Smt. M. K. Damle	
(38) Smt. M. Tikekar	
(39) Smt. M. Joshi	Assistant Mistress, B. T. C., Akola.
(40) Smt. V. Vele	The state of the s
(41) Smt. S. Paonaskar	Principal, B. T. C., Amravati,
(42) Shri G. P. Deshmukh	Principal, Shri Gurudev B. T. C., Gurukunj Ashram (District Amravati).
(43) Shri M. C. Bhagwat .,,	Assistant Master, Old Govt. B. T. C., Chanda.
(44) Shri N. L. Kanhalkar	Principal, Yashwant B. T. C., Wardha,

(c) Principals of Primary Training Colleges.—contd.

tes Shei A M Dashnanda	Principal, Nava Bharat B. T. C., Wardha.
(45) Shri A. T. Deshpande	Principal, Janata B. T. C., Chanda.
(46) Shri B. N. Dakave	Principal, B. T. C., Chikhali.
(47) Shri S. K. Khedkar	
(48) Shri P. S. Nafde	
(49) Shri S. G. Raut	Principal, Shri Shivaji B. T. C., Pusad.
(50) Shri L. B. Mankar	Principal, Dr. P. D. Adiwasi B. T. C., Chikhalda.
(51) Shri R. T. Khadkikar	Principal, Government B. T. C., Buldhana.
(52) Shri H. R. Surte	Principal, Government B. T. C., Shirgaon.
(53) Shri B. M. Deshpande	Principal, Government B. T. C., Dapoli.
(54) Shri V. A. Ajgaonkar	Principal. S. T. A. Vidyamandir, Malwan.
(55) Kum, K. Rege	Principal, Mahila Training College, Ratnagiri.
(56) Shri M. H. Chougule	Principal, Rural Training College, Mithbao.
(57) Shri P. B. Chitnis	Assistant Master, Adhyapak Vidyalaya, Rajapur.
(58) Shri D. D. Hanamsagar	Principal, Adyapika Vidyamandir, Barsi.
(59) Shri P. M. Daptardar	B. T. C. For Men, Pandharpur.
(60) Shri N. K. Angolkar	Principal, Government B. T. C., Mohol.
(61) Shri K. K. Pandhe	Principal, Government B. T. C., Karmala.
(62) Shri S. T. Shinde	Principal, Vithalrao Deshmukh Adhyapak Mandir, Mapuri.
(63) Shri G. A. Daptardar	Principal, Government B. T. C., Budhgaon.
(64) Shri P. N. Dongre	Principal, Shri Shivaji Training College,
(65) Shri N. B. Patil	Principal, Kasturba Adhyapak Vidyalaya, Sangli.
(66) Shri A. A. Sawalwade	Principal, Chhatrapati Shahu Adhyapak Vidyalaya, Rukadi.
(67) Kum. S. Ghatge	Principal, Tararani Adhyapika Vidya- mandir, Kolhapur,
(68) Shri D. R. Mane	Principal, Training College for Men, Kurundwad.
(69) Shri R. S. Ghatge	Principal, Government B. T. C., Sarud.
(70) Shri D. A. Darekar	Principal, Government B. T. C., Dahiwadi.
(71) Shri Y. R. Patil	Principal, Government B. T. C., Wai,
(72) Shri S. M. Mangaonkar	Principal, Training College for Men, Rahimatpur.
(73) Shri N. R. Mane	,, Principal, Jijamata A. Vidyalays, Satara,

- (c) Principals of Primary Training Colleges .-- contd.
- (74) Shri V. P. Pawar ... Principal, P. D. Adhyapak Vidyalaya, Kusur.
- (75) Shri M. H. Joshi ... Principal, Primary Teachers' Training College, Aundh.
- (76) Shri C. B. Shitole ... Principal, S. N. A. V., Barshi.
- (77) Shri A. P. Dhane ... Principal, Government B. T. C., Bhor.
- (78) Shri M. S. Walsangkar ... Assistant Master, Gandhi Training College, Poona.
- (79) Shri H. D. Sattigiri ... Principal, Primary Training College, Mahad.
- (80) Shri G. S. Dusane ,.. Principal, Government B. T. C., Jalgaon.
- (81) Shri P. B. Savakhedkar... Principal, Government B. T. C., Nardhana.
- (82) Shri M. G. Phatak ... Principal, Government B. T. C., Panvel.
- (83) Shri M. Nanawati ... Principal, V. V. Training College, Bombay.
- (84) Smt. K. Shevade ... Principal, G. S. Kapadia Training College, Bombay.
- (85) Smt. P. Paranjpe ... Assistant Mistress, Government B. T. C. for women, Nasik.
- (86) Smt. K. S. Padve ... Principal, K. N. A. V. M., Karad,
- (87) Shri N. R. Kulkarni ... Principal, Government B. T. C., Ambejogai.
- (88) Shri K. V. Dhole ... Principal, Nagarik B. T. C., Nagpur.
- (89) Smt. A. Bansod ... Principal, Ravindra B. T. C. for women, Nagpur.
- (90) Smt. K. D. Nadkarni ... A. M., Government B. T. C. for Women, Phaltan.
- (91) Smt. T. Wooki ... Principal, Government B. T. C. for women, Arvi.
- (92) Smt. K. K. Deshpande ... Principal, J. A. V., Tasgaon.
- (93) Smt. N. Moghe ... Principal, Parwatibai Training College, Karvenagar, Poona-4.
- (94) Smt. V. Bhagwat ... Principal, Vanita Vinaya Training College, Bombay.
- (95) Shri Y. A. Wadile ... Principal, Primary Training College, Shirpur.
- (96) Shri B. S. Chandane ,... Principal, Adhyapak Vidyalaya Training College for Men, Ekhatpur
- (97) Shri G. B. Sonawane ... Principal, Union Training College, Ahmednagar.
- (98) Shri C. M. Phatak ... Principal, Primary Training College, Malegaon Camp.
- (99) Shri R. N. Zoal ... Principal, Government B. T. C., Dhulia

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(c) Principals of Primary Training Colleges .- contd.

- (100) Shri K. N Gulve
- (101) Shri Y. E. Gaikwad
- (102) Shri T. N. Patil
- (103) Shri V. M. Gaikwad
- (104) Shri D. V. Manerikar
- (165) Shei P. G. Nurkar
- (106) Fr. D. E. Parera
- (167) Shri S. Ibne Ali
- (+08) Shri R. Y. Barve
- (109) Shri G. R. Mandre
- (110) Shri S. M. Mulla
- (111) Shri S. B. Wani
- (112) Shri D. G. Dasnurkar
- (113) Shri V. S. Chavan
- (114) Smt. S. Dhavale
- (115) Smt. J. Desai
- (116) Smt. S. Petkar
- (117) Smt. I. Phadke
- (118) Shri P. N. Naggauda
- (119) Smt. V. S. Punekar
- (120) Smt. V. Muzaffar
- (121) Shri M. Y. Mahevi
- (122) Shri M. A. Khan
- (123) Shri M. B. Shinde

- ... Principal, Government B. T. C., Manmad.
- ... Principal, Government B. T. C., Bordi.
- ... Principal, Adhyapak Vidyamandir, Tasgaon.
- .. Latihe Adhyapak Vidyalaya, Ashta.
- ... Secretary, Samartha Shikshan-mandal Depresentative, Bajipur Vanita Vidyalaya, Bassein.
- ... Vice Principal, B. T. C., Nandgaon.
- ... Principal, Training College, Manikpur, Eassein.
- ... Principal, Government Urdu Training College for Men, Poona.
- ... Frincipal, Government B. T. C., Jawhar.
- ... Principal, Government B. T. C., Sasawane.
- ... Priocipal, Government B. T. C., Loni-Kalbhor.
- ... Principal, Government B. T. C., Sakali.
- .. Principal, Training College, Gargoti.
- ... Principal, M. S. Training College, Nasik.
- .. Lady Superintendent, Government B. T. C. for Women, Poona.
- ... Principal, Somaiya Training College, Bombay.
- Principal, R. N. Training College for women, Bombay.
- .. Lady Superintendent, S. S. Training College for women, Poona-2.
- ... Principal, A. E. S. Primary Training
- College, Ahmednagar.
 ... Principal, C. S. M. Training College,
 Poona-2.
- ... Assistant Mistress, Urdu Training College for women, Poona-2.
- ... Principal Urdu Training College, Malegaon Camp.
- ... Principal, R. C. Mahim, Urdu Training College, Bombay-6.
- ... Principal, Pratap Training College, Wadange (District Kolhapur).

APPENDIX IV

Institutions visited by the Committee

- 1. Hingne Stree Saikstran Saustha, Karvenagar, Poona-4
- 2. Mabut Sewa Sadan Primary Training College, Poona-2
- 3. S. M. T. T. College, Kolhapur
- 4. G. & Listitude of Rural Education, Gargoti
- 5. Primary Extension Services Centre, Gargoti
- 6. Institute of Rural Education, Ameavati
- 7. Government Diploma Training Institute for Women, Amravati

सन्धमेव जयते

8. Government College of Education, Aurangabad

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APPENDIX V

Sub-Committees which analysed existing curricula for Teacher-Education

1. Pre-Primary:

- 1. Shri B. D. Karve
- 2. Shri Shesh Namale
- 3. Smt. S. Brahme

2. Primary:

- 1. Shri L. N. Chhapekar
- 2. Shri S. R. Londhe
- 3. Shri V. D. Desai
- 4. Shri V. H. Jagdale
- 5. Smt. I, Phadke



3. Secondary:

- 1. Shri N. V. Patankar
- 2. Shri N. T. Vartak
- 3. Shri V. M. Veni
- 4. Dr. B. K. Sohoni
- 5. Smt. Geeta Gadre
- 6. Shri P. K. Veerkar

APPENDIX VI

STATISTICAL INFORMATION

		V I.(V I.(i) Distribution of Teachers under Training (Regionwise)	ion of Teach	iers under I	raining (Re	gionwise)			
£			1962-63			1963-64			1964-65	
Kegion		S.S.C.	P.S.C.	Total	S.S.C. P.S.C.	P.S.C.	Total	S.S.C.	P.S.C.	Total
Poona Region	:	1,819	2,034	3,853	1,181	2,063	3,244	1,496	2,087	3,583
Bombay Region	:	1,494	1,449	2,943	1,613	2,580	4,193	1,645	1,790	3,435
Aurangabad Region	:	1,100	277	1,377	1,487	241	1,728	1,200	534	1,734
Nagpur Region	:	865	1,547	2,145	787	2,343	3,130	1,233	1,276	2,509
Total	:	5,011	1	5,307 10,318	5,068	7,227	12,295	5,574	5,687	11,261

(G.C.P.) L-A Na 5700—18 (2,525—2-67)

VI. (ii) Number of Training Institutions (Primary and Secondary), their intake capacity and utilization during 1966-67

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		Primary	Teacher 7 (P.T.C.)	Training	Sec	ondar	y Teacher 7 (B.Ed.)	Training
		Men	Womon	Total		Men	Women	Total
1.	Institutions by Manage-							
	Government	50	10	60	Govt.	9		9
	Aided	54	27	81	Uni.	1	2	3
					Aided	17	••	17
	Total	104	37	141		27	2	29
2.	Enrolment Total			18,761		•		2,314
3.	Intake Capacity— Total		V.	19,200				2,400
4.	Expenditure (direct) Government,		49	9,30,218	3		6	5,57,700
	Total			7,04,980 			1:	5,46,565
5.	Cost per pupil (Rs.) Government.			247				292
	Total			286				686

VI. (iii) Percentage of Trained Teachers at the Elementary and Secondary: Levels

		Men			Women			All persons	
1041	Total	Trained	Trained	Total	Trained	% Trained	Total	Trained	7. Trained
A. Elementary:									
1955-56	73,180	36,851	20.4	17,558	11,555	8.59	90,738	48,406	53.3
1956-57	77,449	40,592	52-4	18,568	12,968	8.69	96,017	53,560	55.8
192/-26	80,043 82,385	44,316	4.00	20,351	14,796	72.7	1,00,394	59,112	28.8
1959-60	84.035	49,136	7.85	23,720	17 501	73.3	104,401	63,141	5.09
190961	88,933	52,799	59.4	25,677	19.016	74.0	1,07,733	71.815	61.7 7.7.7
1961-62	92,571	57,079	61.7	27,463	20,382	74.2	1,20,034	77.461	54.5
1962-63	95,782	64,375	67.5	29,691	22,797	8.92	1,25,473	87,172	69.5
1963-64	1,04,184	74,845	75.0	32,982	25,602	77.6	1,37,166	1,00,447	73.2
1965-66	1,09,430	87,295	9.62	35,084	28,122	- 62 - 80 - 7	1,41,779	1.08,634	76.6 79.9
B. Secondary:									
1955-56	13.811	8 195	50.3	7 384	3 220	73.7	19 105	7.7.7.	9.5
1956-57	15,683	9,019	57.5	7.40	3.535	74.6	20,123	12,424	0 7 0 7 0
85-7561	17,024	10,125	59.5	5,107	3,921	8.92	22,131	14 046	2.5
1958-59	20,495	12,041	28.8	6,364	4,773	75.0	26.859	16.814	9.69
1959-60	23,060	13,599	29.0	7,190	5,397	75.0	30,250	18,996	× 6
1960-61	24,969	14,816	59-3	8,131	6,070	74.7	33,100	20.886	63.1
1961-62	28,436	17,217	2.09	9,278	6,893	74.3	37,714	24,110	63.9
1962-63	31,497	19,814	65.9	10,382	7,920	76.3	41.879	27,734	2.99
1963-64	34,249	22,707	2.99	11,522	8,925	77.5	45,771	31.632	1.69
1964-65	36,571	25,236	0.69	12,582	10,053	6.62	49,153	35,289	71.8
1965-66	40,269	28,600	71.0	14,153	11,602	85.0	54,422	40,202	73.9

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VI.(iv) Examination Results, 1964-65

Examination Results	1	Primary '	Teacher T (P.T.C.)	raining	Secondary	Teacher 1 (B.Ed.)	raining
Examination Results		Men	Women	Total	Men	Women	Total
Iunior P.T.C: 1st year (S.S.C.)—							
Number appeared	••	4,564	1,186	5,750			
Number passed		4,447	1,145	5,592			
2nd year (P.S.C.)							
Number appeared		7,158	2,877	10,035			
Number passed		5,303	1,818	7,121			
Total—			W717275				
Number appeared		11,722	4,063	15,785			
Number passed		9,750	2,963	12,713			
Nenicr P.T.C.: 1st year				9			
Number appeared		207	232	439			
Number passed		181	184	365			
2nd year-			9-17	D			
Number appeared	••	51	13	64			
Number passed		47	10	57			
Total:							
Number appeared		258	245	503	1,163	608	1,771
Number passed	••	228	194	422	1,093	559	1,652

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VI. (v) Proportion of graduate A. D. E. I.s Districtwise and Regionwise.

Seria No.	.	Name of th	e District.			Total No. of A.D.E.I.s	No. of graduate A.D.E.I.s
			Bombay .	Division			
1	Kolaba					23	13
2 3 4	Thana		• •	••	• •	34	11
3	Nasik		• •	• •	• •	33	20
5	Ratnagiri Jalgaon	• •	• •	• •	• •	45 31	16 20
6	Dhulia Dhulia	• •	• •	••	• •	26	24
				Total		192	104
			n n	tal.			
			Poona Di	vision			
7	Poona		mili	200		42	31
8	Satara		6-71582	53/R/A		36	20
9	Sholapur		18:33 W			33	28
10	Ahmednagar	•	77139	2448332V	• •	49	15
11	Sangli Kolhapur	• •	RELEAR	228E00	• •	19 28	10 17
12	Kontapui	• •	ANE	38489	••	20	
			9.//	Total	••	207	121
			Aurangaba	d Division			
13	Aurangabad		135.59	3001723		32	13
14	Bhir	• •	(18.11.310)	SELECTION OF THE PARTY OF THE P		22	18
15	Parbhani	• •	-	THE PERSON NAMED IN COLUMN		24	1 9
16	Osmanabad	• •	सत्य	पव जयत	••	22	20
17	Nanded	••	• •		• •	22	10
				Total	••	122	80
			Nagpur	Division			
18	Akola					19	11
19	Amravati	• • • • • • • • • • • • • • • • • • • •	• • •	••	• • •	24	14
20	Bhandara	• •				15	8
21	Buldhana	• •	• •	• •	• •	22	10
22	Chanda	••	• •	• •	• •	18	.8
23 24	Nagpur Wardha	• •	• •	••	• •	25 13	13 8
25	Yeotmal	• •	• •	• •	• •	23	10
					-		
				Total	• •	159	82

VI. (vi) Subjectwise analysis of the available staff at the Secondary Level

Seria No.		ects	je	Teacher cators tudied the ect only cademic as prin subje	who ne sub- for the degree cipal	Teacher cators studied th ject only f B. Ed. der special m	who e sub- or the gree as	Teacher- cators studied th ject bot! Acadami B, Ed, de (Relation	who e sub- h for c and egrees
1	2			3		4		5	
			·	No.		No.		No.	
1	English			57		108	• • • •	37	
2	Marathi/Gujarat	hi/ Urd u		100		93	••••	66	
3	Sanskrit/Persian	••		67		32		32	
4	Hindi		• •	22	reten	22		10	
5	Science		8	78	SE.	62		61	• • • • •
6	Mathematics		Y	37		64		38	
7	History			33		53		16	
8	Geography	••	• •	5		52	••••	7	
9	Civics (Politics)			47	1 10 3	8	• • • •	8	•:••
10	Other Collegiate Psychology, Ardha Magdh	Soci	g (e.g. ology,	103) V)		••••	*** * *

VI.(vii) Relationships between Academic and Professional Specialisation of teacher eductors at the Secondary level

her- tiors ject for ic and ic and also at B.Ed. special		Per cen	38.4	81.5	94.8	50	100	52.7	25	15.4	20	÷
Teacher-Educators With subject for Academic and B.Ed. degree and also teaching at B.Ed level as special methods.	7	Š.	15	31	18	12	36	19	9	4	4	:
-	9	No. Per cent.	5.6	8.1	:	:	:	:	9.91	23.1	25.1	i:
Teacher- Educators with subject either for Academic or B.Ed. degree	_		-	33	:	:	:	:	4	9	7	:
v	5	Per cent.	5.5	5.2	5.5	41.6	:	:	4.3	:	25	: :
Teacher. Educators with subject for Academi degree and B.Ed.		Ż.	7	7	-	10	:	:		:	7	:
Teacher. Educators ith subject ly for B.Ed.	4	No. Per cent.	53.8	5.2		%	:	47.3	54.1	61.5	:	:
Teacher. Educators with subject only for B.Ed		- 1	21	2	W	2	:	17	13	16	:	:
No. of Teacher- Educators	m	Per cent.					:	:	:	:	:	:
Texe Educ		Š.	39	38	19	54	36	36	24	56	∞	:
		44	od refe	ৰ ল	यने	:	:	:	:	:	:	(e.g. Socio-
5 6			:	Jrdu	:	:	;	:	:	:	:	subjects ychology, s gdhi. etc.)
Subject	2		:	Marathi/Gujarati/Urdu	Sanskrit/Persian	:	:	atics	:	ohy	Politics)	Other Collegiate, subjects (e.g. Philsosophy, Psychology, Sociology, Ardha Magdhi. etc.)
ੱ ਕ .			English	Marath		Hindi	Sciences	Mathematics	History	Geography	Civics (Politics)	Other Phils logy.
Serial No.	-		÷	7	ů	4	۶,	9	7.	∞	<u>બ</u>	10.

VI.(viii) Relationship between the Graduation and Professional Specialization and Actual Teaching Assignment of Secondary Teachers

(A Pilot Survey carried out in Poona District.)

TABULAR ANALYSIS

English				ine suoject for first degree an professional degree	the subject for first degree and rofessional degree	the subject for first degree only	the subject for first legree only	the subject for professional degree only	the subject for professional degree only	the subjec for neither degree		of Teachers
English				Zo.	No. Per cent.	Ž,	Per cent.	No.	Per cent.	ő	Per cent.	
	:	:	:	28	12.2	17	3.5	230	48.2	172	36-1	477
Hindi*	:	:		09	33.7	34	19-1	42	23.6	42	23.6	178
Marathi*	:	:	(SUP	113	36·33	33	10-5	98	27.4	82	26.1	314
Sanskrit*	•	:	191 9	40	25.8	22	32.9	14	0.6	20	32.3	155
Mathematics	:	:	195	79	24.7	15	4.7	157	49.0	69	21.6	320
General Science	:	:	:	137	8.65	30	13.2	31	13.55	31	13.55	229
(One Branch of Science Only)	ce Only)											
Chemistry	:	;	:	25	48.1	11	21.2		1.7	15	28.8	25
Physics	:	:	:	29	58.00	11	22.0	3	0.9	7	14.0	20
Physiology and Hygiene	ne	:	:	9	17.6	71	0.9	3	8.8	23	90.99	34
Home Science	:	:	:	0	0	0	0	-	14.3	9	85.7	7
History and Civics	:	:	:	20	5.6	27	12.8	75	35.5	66	42.2	221
Geography	:	:	:	11	2.6	11	9.9	87	44.4	87	44.4	196

*Subject may have been studied for examinations of bodies other than Universities.

VI. (ix) Qualifications of teacher-educators in Secondary Training Colleges (1965-66),

Serial No.	Degree.		h	No. of colders of he degree
1	Ph.D. (Education		•••	13
2	M.A./M.Sc., M.Ed.	•••	•••	90
3	B.A./B.Sc., M.Ed.		•••	78
4	M.A./M.Sc., B.Ed.	•••	•••	44
5	B.A./B.Sc., B.Ed.	•••		31
6	Special Teachers	•••		2

Total ... 258



APPENDIX VII

A: TRAINING OF GRADUATES (SECONDARY)

An outline of the proposed course for the B.Ed. Examination.

The examination for the degree of Bachelor of Education will consist of two parts: Part I-Theory, Part II-Practical work. Part I will consist of 5 compulsory papers as under:—

- Paper I---Foundations of Education (Philosophy of Education and Educational Sociology)
- Paper II--Foundations of Education (Educational Psychology and Experimental Psychology)
- Paper III--Methods of Instruction and Evaluation
- Paper IV—(i) School Organisation, (ii) Educational Structure and Procedures.
 - (i) School organisation—
 - (a) Buildings and equipment: Norms, Maximum Utilisation, maintenance.
 - (b) Organization of the instructional programme; Tasks of Head Masters, Teachers & Pupils.
 - (c) Organization of Health education, Work-experience, Youth activities and Student-Welfare.
 - (ii) Educational Structure and Procedures-
 - (a) The educational system in India and Maharashtra.
 - (b) Service conditions and Professional ethics.
 - (c) Objectives and functions of professional organizations of Teachers, Head-Masters, Educators, subject-teachers etc.
- Paper V—Practice Teaching (Special Method: Methods of Teaching any two school subjects).
- Note: (1) Each of the above papers will be of 3 hours' duration and will carry 100 marks.
 - (2) For Paper V (as well as in teaching-practice under Part II) candidates will be allowed to offer only those school subjects which they had offered for their graduation—other than compulsory English. (If a candidate wishes to select for his or her special methods paper and practice of teaching a subject or subjects, which were not offered at the graduation stage, he or she will be required to appear for and pass in a paper or papers in Knowledge Content, in addition to the 5 papers indicated above. Such a special paper will be of 1½ hours duration and will carry 50 marks. Candidates offering both the special method subjects which were not their graduation subjects, will consequently be required to appear for and pass in two additional papers).

Part II-Practical work in respect of Theory Papers will consist of
(a) (i) Paper I Study of the Socio-Economic Background of five children.
(ii) Paper II Case study of one child and Psychological experiments.
(iii) Paper III Formulation of objectives and learning experiences, construction of Test Items, administering Tests and Item Analysis.
(iv) Paper IV Catalogue work, Maintenance of Cumulative Record Cards, Framing Class Time tables, Maintaining School Registers, Study of School Buildings and Class-room conditions, and Organization of Co-curricular activities oriented towards Social Service.
(b) (i) Practice Teaching (10 lessons guided and supervised 100 Marks internship for two weeks under general guidance of the masters of methods).
(ii) Guided observation of teaching during first month. 25 Marks
(c) Other Practical Work;
(i) Art and Craft Work (work—experience) 50 Marks
(ii) Preparation of 4 different types of teaching aids 25 Marks related to the two subjects of specialization.
(iii) Participation in co-curricular activities of the training 25 Marks institution.
(iv) Essay-writing, Project work etc 25 Marks
(v) Periodical internal tests 50 Marks
The distribution of marks in Part I and Part II will thus be as under:
Part I—(Theory):
5 compulsory papers 500 Marks (to be externally assessed)
Part II (Practical Work) 400 Marks (to be internally assessed).
Scheme of passing: Total 900 Marks
Class II: 35 per cent, marks in each paper, 50 per cent marks in the aggregate in Part I, 55 per cent, marks in Part II.
Class I: 60 per cent, marks in Part I, 65 per cent, marks in Part II.

Class I: 60 per cent, marks in Part I, 65 per cent, marks in Part II.

Distinction: 70 per cent, marks in each part separately.

There will be no pass class.

In the extra papers offered in connection with the Special Methods, a candidate shall be required to obtain a minimum of 50 per cent. marks in each paper offered. These marks will not be added to the Grand Total nor will they be considered for a class.

A few other details:

- (1) Duration of the course: One year (240 actual working days).
- (2) Course to commence on 20th June and end on 15th April.
 University Examination between 15th and 25th April.

Result : about 20th May.

- (3) Part II: No external examination—that would give some additional days for actual college work.
- (4) No previous experience of teaching in a school necessary for admission to the course.
 - B: TRAINING OF UNDERGRADUATES (PRIMARY/LOWER SECONDARY)

Diploma in Education (D.Ed.)

The course shall consist of two parts; Part I—Theory and Part II—Practical Work. Part-I will consist of two groups. Group I: Education; Group II: Academic Subjects. Part II will consist of three groups: Group I: Teaching Practice; Group II: Work Experience in Crasts. Community Service and Group Activities; Group III: Physical Education (including Health Education, Scouting National Fitness Corps), Music, Drawing and Blackboard Work.

Outline of the course: Part 1: Group-I: Three papers as under:

- I-Foundations of Education: Philosophical, Psychological and Sociological
- H-6) School Organization, and (ii) Educational Structure and Procedures
 - (i) School Organization:
 - (a) Buildings and equipment. Norms; Maximum Utilization, maintenance.
 - (1) Organization of the intructional programme; Tasks of Headmasters, Teachers and Pupils.
 - (c) Organization of health education. Work-experience, Youth activities and Student-Welfare.
 - (ii) Educational Structure and Procedures:
 - (a) The educational system in India and Maharashtra.
 - (b) Service conditions and Professional ethics.
 - (c) Objectives and functions of Professional organisations of Teachers, Head-masters, Educators, Subject-teachers, etc.
- III-Methods of Instruction and Evaluation.

Note—Fach of the above papers will be of 3 hours' duration and will carry 100 marks.

Group II: -- Academic Subjects—This group will consist of three papers:

Paper I: Mother-tongue (Marathi, Gujarati, Hindi, Sindhi, Kannad, etc.)

- (a) Study of the prescribed course in the subject.
- (12) Detailed study of the syllabus in Mother-tongue for Stds. I to VII.
- (e) Methodology of teaching the Mother-tongue.

Papers 11 and III: Any two of the following subjects:

Other than the one selected for Paper I (Provided that no more than one language is selected from the list given below):

English, Hindi, Elementary Mathematics, Social Studies and General Science

- (a) Study of the prescribed course in the subjects.
- (b) Detailed study of the syllabus of the subjects for Stds. I to VII.
- (c) Methodology of Teaching the Selected subjects.

Note.—Each of the above papers will be of 3 hours' duration and will carry 100 marks. 70 marks for the knowledge of the subject, including study of the syllabus, and 30 marks for methodology of that subject).

Part II

Group I: (a) Year's teaching work to be carried out every year. This will include—

(1) Guided observation of at least 20 lessons during the first month and thereafter at least 3 lessons every month; (2) Guided and supervised lessons—10; (3) Internship for a fortnight during the year

... 150 Marks

(b) Other practical work

Preparation of at least 6 Audio Visual Aids every year related to the subject offered; one Project; case study of at least one pupil; maintenance of records of a class for a month; maintaining a diary of important educational activities in the institution, locality and outside.

50 Marks.

Group II: Work experience in Craft, community service and group life activities. Every trainee will have to choose two crafts. Marks: as under:—

(a) Year's work in the Craft:

... 75 Marks

(h) Group-Life Activities:

25 Marks

The work in group-life activities should include participation in the various social and cultural activities of the training institution, school community and organization of such activities.

Group III: Other Subjects-

... 100 Marks

This group will include the following subjects:

(1) Physical Education, Health, Nutrition Education, Scouting, National Fitness Corps, Community-service and Pupil-welfare etc., (2) Music, (3) Drawing and Blackboard Practice.

Practical Tests in these subjects carrying 100 marks will be held by the college authorities at the end of the course in this group. Course in Diploma in

Education will thus have in all 1000 marks distributed beween Part I and Part II as under:

Part I: Group I: Education ... 300 marks

Group II: Academic Subjects including Methods of Teaching. ...

Part II: Group I: Practice Teaching etc. ... 200 marks

Group II: Work-Experience ... 100 marks

Group III: Other Subjects ... 100 marks

Total: 1000 marks

Note.—Assessment of practical work under Part II will be made internally by the teacher-educators.

The Education Department of the Government of Maharashtra shall hold an examination for the award of the Diploma, once a year.

Admission of Candidates-Minimum qualification; S.S.C. or its equivalent; Age-Limits: 18 to 25 (to be relaxed only in exceptional cases).

Scheme of passing: II Class: Minimum 45 per cent, marks in the aggregate and at least 35 per cent, marks in each paper from Part I and in each group from Part II.

I Class: 60 per cent, or more in the aggregate

Distinction: 70 per cent, or more in the aggregate.

There will be no pass class.

Medium of Instruction: The medium of instruction for the course shall be decided by the management in accordance with the type of schools for which it proposes to prepare the candidates.

APPENDIX VIII

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